NATIONAL MUSEUM
OF VICTORIA

VIRO ORNATISSIMO

JOSEPHO BANKS,

BARONETTO,

REGIÆ SOCIETATIS LONDINENSIS

EXIMIO PRÆSIDI:

PEREGRINATORI CELEBERRIMO,

INGENII ACUMINE, LABORUM PATIENTIA,

PHYSICIS

PER OMNE ÆVUM COMMENDATISSIMO,

SECUNDUM HUNC

NATURÆ VIVARII

FASCICULUM,

D. D. D.

GEORGIUS SHAW,

FREDERICUS P. NODDER.

TO

SIR JOSEPH BANKS,

BARONET,

PRESIDENT OF THE

ROYAL SOCIETY

OF LONDON:

TO WHOSE UNWEARIED LABOURS,

ENLARGED KNOWLEDGE,

AND LIBERAL PATRONAGE,

THE SCIENCE OF NATURAL HISTORY

IS SO HIGHLY INDEBTED,

THIS SECOND VOLUME OF THE

NATURALIST's MISCELLANY,

IS RESPECTFULLY INSCRIBED

BY

GEORGE SHAW,

FREDERICK P. NODDER.

MUS SALIENS.

Character Genericus.

Dentes primores inferiores ſubulati.

Lin. Syſt. Nat. p. 79.

Character Specificus, &c.

MUS cauda elongata floccoſa, femoribus longiſſimis, digito utrinque ſpurio ad pedes poſticos.

CUNICULUS pumilio ſaliens, cauda anomala longiſſima.

Briſſon Quadr. 103.

JERBOA.

Shaw Itin. 248.

Mira pedum anticorum et poſteriorum inæqualitate diſtinguitur Jerboa: antici enim ita breves ſunt ut ad progrediendum minime valeant, poſtici autem totius corporis longitudini pares ſunt. Hinc fit ut pedibus ſolummodo poſterioribus ſtet et quieſcat, anticoſque ad nullum alium uſum convertat, quam ad attrahendum cibum, culmos nempe cum ſpicis tritici, aliaſque plantas; aut ad fodiendum cubile ſubterraneum. Plerumque more avis incedit, erecta ſcilicet cruribus, quæ pilis rariſſimis veſtiuntur, aviumque cruribus ſunt

valde ſimilia. Cauda illi prælonga eſt, apice faſciculato.

Tres vel quatuor exſtant Jerboæ ſpecies, vel ſaltem conſtantes, ut dicuntur, varietates, quæque in PENNANTII Hiſtoria Quadrupedum, genus diſtinctum conſtituunt; quas vero LINNÆUS, ſub genere *Muris* ordinat.

Perniciſſimæ velocitatis ſunt Jerboæ, et ab hoſte ſaltibus continuatis longiſſimis adeo rapide aufugiunt, ut equo generoſo vectus aliquis vix ægreque illas aſſequi poſſit. Frigoris ſunt impatientes, et tempore brumali in domunculis ſubterraneis ſepultæ obdormiunt. Frugibus veſcuntur. In hoc potiſſimum differt ſpecies de qua jam agitur a communi ſpecie, (quæ *Mus Jaculus* LINNÆI) quod crura paulo ſupra pedes digito utrinque ſpurio, longo, velut calcari armantur. Non tantum calidas regiones, Syriam nempe et Barbariam, ſed et Sibiriæ partes orientales, idque frequenter, incolit Jerboa. Moles illi eſt quaſi magni ſoricis.

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THE
SIBIRIAN JERBOA.

GENERIC CHARACTER.

Two long cutting teeth in each jaw.
Fore Legs very ſhort: hind legs very long.

SPECIFIC CHARACTER, &c.

JERBOA with a pair of ſpurious toes on each hind foot.

SIBIRIAN JERBOA.

Pennant Quadr. p. 429.

The Jerboa is remarkable for the ſtrange diſproportion between the length of the fore legs and the hind ones; the former being ſo very ſhort as to be of no uſe to the animal in walking, while the latter are ſo long as to equal the whole body. In conſequence of this peculiar formation, the creature ſtands and reſts on its hind legs only, and makes no other uſe of the fore legs than to hold its food, and draw down the ſtems of wheat and other vegetables on which it feeds, and to ſcratch the ground in order to form its burrows. It has the general actions and attitudes of a bird, and the legs are covered thinly with ſhort hair, and very much reſemble thoſe of birds. The tail is very long and terminates in a tuft.

There are three or four diſtinct ſpecies, or at leaſt permanent varieties of Jerboa, and in the Hiſtory of Quadrupeds of Mr. Pennant they conſtitute a particular genus; but Linnæus places them as ſpecies of the genus *Mus*.

The Jerboas are animals of the moſt ſurprizing ſwiftneſs, and on the approach of danger immediately ſpring forward by ſucceſſive leaps, ſo very nimbly, that it is ſaid to be very difficult for a man well mounted to overtake them. They are impatient of cold, and remain during the winter in a dormant ſtate in their burrows. They feed on vegetables. The particular ſpecies here repreſented differs principally from the common Jerboa or *Mus Jaculus* of Linnæus in having the legs furniſhed at a little diſtance above the feet with a pair of ſpurious toes or ſpurs. It is found not only in the warmer regions of Barbary and Syria, but in the Eaſtern part of Siberia in conſiderable plenty. It is about the ſize of a large rat.

PENNATULA PHOSPHOREA.

Character Genericus.

Flores Hydræ, ad marginem denticulatum pinnarum.

Stirps libera, ſubulata, apice pinnata.

Lin. Syſt. Nat. p. 1321.

Character Specificus, &c.

PENNATULA ſtirpe carnoſa, rachi ſcabra, pinnis imbricatis.

Lin. Syſt. Nat. p. 1322.

PENNATULA PHOSPHOREA.

Ellis Act. Angl. v. 53. t. 19. f. 1—5.

PENNA MARINA.

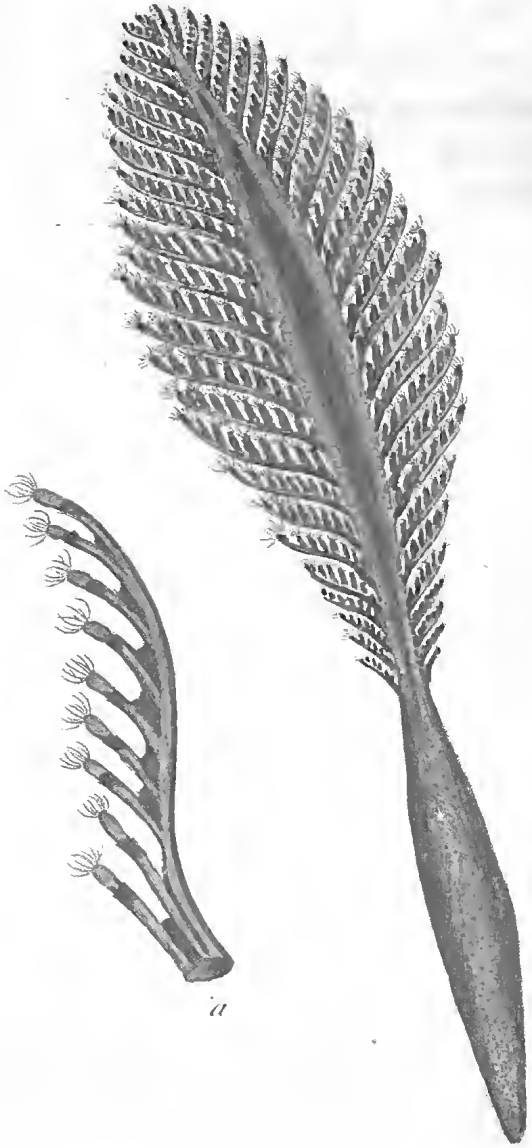
Bauhin Hiſt. 3. p. 802.

Pennatulæ genus conſtituunt Zoophytorum moventium, more piſcis natantium. Formæ ſunt plerumque perelegantis. Species quam deſcripſimus eſt fortaſſe vulgatiſſima. Circa littora Britanniæ frequens reperitur, et non raro adhæret piſcatorum lineis. Animal conſtat corpore, ſeu velut ſtipite paulum complanato, et inde in ramos laterales numeroſos expanſo, quorum parietes interni in tubulos multos dividuntur, e quorum apicibus totidem prodeunt velut hydrarum,

hydrarum, ſeu polyporum capitula, cum ſuis tentaculis. Totum igitur animal videtur eſſe hydra ramoſa et valde compoſita, cujus corpus in ſtipite, ſeu parte nuda continetur, atque in numeroſiſſimos ramulos utrinque continuatur, ſingulo ramulo peculiari ſuo capite inſtructo.

Mirum hoc animal lucem adeo phoſphoream emittit, ut piſcatores piſces prope ludentes ſolo Pennatulæ lumine diſtincte perſpicere poſſint. Color ejus vivide ruber eſt, et communis magnitudo ut repræſentat tabula.

a. Ramulus microſcopio auctus.



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THE PHOSPHORIC PENNATULA, OR SEA-PEN.

Generic Character.

Animal free, or locomotive.

Body (generally) expanding into proceſſes on the upper part.

Proceſſes or branches furniſhed with rows of tubular denticles.

Polype-head proceeding from each tube.

Specific Character, &c.

SEA-PEN with fleſhy ſtem, middle part rough, pinnules imbricated.

BRITISH SEA-PEN.

Ellis Zooph. p. 61.

THE COMMON SEA-PEN.

The Pennatulæ or Sea-Pens form a genus of locomotive Zoophytes, and ſwim in the manner of a fiſh. They are in general of a very beautiful appearance. The ſpecies here exhibited is the moſt common: it is found in conſiderable plenty on the Britiſh coaſts, and is

is drawn up in numbers adhering to the baits of fiſhermen's lines. The animal conſiſts of a ſomewhat flattened ſtem or body, which is furniſhed with an internal bone, and dilates into an expanded part conſiſting of a great many pinnæ or lateral branches, which are divided on their inner edges into a number of tubular proceſſes, through each of which is protuded a part of the animal, reſembling the head of a hydra or polype: the whole animal therefore may be conſidered as a very compound or ramified hydra or polype, the body of which is contained in the naked part or ſtem, and from thence ramifies into a vaſt number of proceſſes, each furniſhed with its particular head.

This curious animal emits a very ſtrong phoſphoric light, and it is even ſo luminous that it is no uncommon circumſtance for the fiſhermen to ſee the fiſh which happen to be ſwimming near it, merely by the light of the Pennatula. Its colour is a bright red or crimſon, and the general ſize that of the figure.

a. One of the pinnæ magnified.

DIONÆA MUSCIPULA.

Character Genericus.

Perianthium pentaphyllum.
Corolla pentapetala.
Germen depreſſum, crenatum.
Stigma patens, fimbriatum.

Cl. Decandria Monogynia.

Character Specificus.

DIONÆA foliis ciliatis.

Carnivoro generi varia eſt acquirendæ prædæ ratio. Ab hoc nempe vi corripitur; ab illo venatione fatigatur: alterum venenum lethale morſu inflat, et id omne otioſum deglutit, cui aufugiendi poteſtatem ademerit: eſt etiam quod multiplici utitur dolo, incautaque animalia in caſſes ſuos illaqueat. Non tantum animalibus majoribus ineſt hæc prædandi cupido, ſed et minimis; præcipueque inſectis, quorum plurima interdum vel in ſuam ſpeciem graviter ſæviunt.

Quod vero dictu omnino mirum videatur, ſunt etiam plantæ ad inſectorum damnum et perniciem natæ, quæ vel a viſcoſo foliorum aut florum quibus incaute inſident, humore implicantur, vel illius partis quam irritabilem nuncupant phyſici, preſſura includuntur. Ita ſe rem habere certiſſime demonſtrat ſpecies illa Apocyni, botanicis

botanicis nomine Apocyni androſæmifolii probe cognita: in cujus floribus antheræ quæ profundius intra corollam latent, adeo convergunt, ut ſint quaſi tegmen nectariis ſubjacentibus; quorum in medio manet gutta liquoris dulcis et mellei quo potiſſimum delectantur inſecta. Antheræ leviſſimo tactu irritabiles, multo arctius inter ſe conveniunt; quo fit ut muſca, ſeu aliud inſectum floribus inſidens, et proboſcidem ad mel exugendum e fundo corollæ protendens, antheris irritatis et ſubito convergentibus irretiatur, miſereque detenta pereat.

Eſt tamen multo mirabilius exemplum irritationis hujus vegetabilis in planta quæ in tabula depingitur. Cum enim foliorum ſuperficies facillime exaſperetur, et ſingulum folium ad margines ſerie ſpinularum ſeu vallorum cingatur, tactumque, ſubito in longitudinem arctiſſime convergat; neceſſe eſt ut quicquid inſectum ibi malo fato advenerit, niſi ociſſime aufugiat, non ſecus ac mus in muſcipula capiatur; plerumque etiam firma et valida preſſura occidatur. Irritabiliorem reddit hanc plantam plenus et meridianus ſolis calor.

America Septentrionali innaſcitur, in uliginoſis Carolinæ locis præcipue reperta. In Angliam circiter vigintiquinque abhinc annos illata eſt, et a celeberrimo Ellisio nomine *Dionææ Muſcipulæ* deſcripta.

Quo præcipue conſilio inſita ſit illi mira hæc indoles quam jam tractavimus, philoſophos omnes hactenus effugit, latebitque, ut credo, poſteros.

Magnitudo ejus plerumque eſt ut in tabula depicta: nonnullas tamen ipſe aliquando vidi quibus caulis multo procerior. Numerus ſtaminum non ſemper certus eſt, et idem.

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DIONÆA MUSCIPULA,

OR

VENUS's FLY-TRAP.

GENERIC CHARACTER.

Calyx five-leaved.
Corolla five-petaled.
Germen depreſſed and crenated.
Stigma ſpreading and fimbriated.

SPECIFIC CHARACTER.

DIONÆA with ciliated leaves.

Various are the methods by which animals of a carnivorous nature obtain their deſtined prey; ſome ſeizing the victim with reſiſtleſs violence, or hunting it down till it is exhauſted with fatigue, or inflicting a deadly poiſon by their bite, and thus ſecuring it beyond all poſſibility of eſcape, and afterwards ſwallowing it at leiſure: others exerting every artifice of inſidious ingenuity, and entrapping the unwary animal into their ſnares. It is not only amongſt creatures of the larger kind that this predacious diſpoſition prevails, but even throughout many of the ſmalleſt tribes of nature; and particularly amongſt inſects, of which ſeveral kinds might be adduced which occaſionally prey even on their own ſpecies.

What

What is ſtill more extraordinary, there are not wanting amongſt vegetables ſome inſtances, in which the ſmaller animals meet their fate by alighting on the flowers or leaves; being either held faſt by a viſcous exſudation from the ſurface, or confined by the preſſure of the irritable parts of the plant. One of the moſt curious inſtances of this kind is in a ſpecies of Apocynum, well known to Botaniſts by the name of Apocynum androſæmifolium. In the flowers of this plant the antheræ, which are ſituated pretty deep in the flower, converge, ſo as to form a ſhelter for the nectaria lying below them, and in the centre of which is contained a ſmall quantity of that ſweet juice ſo peculiarly attractive to inſects. The antheræ are poſſeſſed of a very great degree of irritability, and ſuddenly converge much cloſer on being touched; when therefore a fly, or other ſmall inſect alights on the flower and inſerts its proboſcis into the centre, it is ſuddenly caught by the converging antheræ, and detained in this miſerable ſituation till it periſhes.

But a ſtill more wonderful example of vegetable irritability occurs in the plant repreſented on the annexed plate. In this plant the ſurface of the leaves is irritable in the higheſt degree, and each leaf being furniſhed round the edge with a ſeries of ſpiny proceſſes, and converging longitudinally when irritated, with a very conſiderable degree of preſſure, it follows that whatever inſect is ſo unfortunate as to alight on the leaf, is, (unleſs it be extremely nimble) caught as effectually as a mouſe in a trap, and is even generally ſqueezed to death by the preſſure. The plant is moſt irritable during the warm part of the day, and in full ſunſhine.

It

It is a native of North America, and is principally found in the ſwampy parts of Carolina, from whence it was introduced into this kingdom about twenty-five years ago, and was deſcribed by the late Mr. Ellis by the title of Dionæa Muſcipula.

What particular purpoſe in the Oeconomy of Nature is anſwered by the impriſoning power of this extraordinary vegetable, it is extremely difficult, and perhaps impoſſible to determine.

The general ſize of the plant is as repreſented in the plate, but I have ſeen the ſtem much taller than in the ſpecimen here figured. The number of ſtamina is not always conſtant.

BUCEROS RHINOCEROS.

Character Genericus.

Roſtrum convexum, curvatum, cultratum, magnum, extrorſum ſerratum; Frontis calvaria nuda, oſſeo-gibboſa.
Nares pone roſtri baſin.
Lingua acuta, brevis.
Pedes greſſorii.

Lin. Syſt. Nat. p. 153.

Character Specificus, &c.

BUCEROS cornu mandibulari frontis recurvato.

Lin. Syſt. Nat. p. 153.

HYDROCORAX INDICUS.

Briſſ. Av. 4. p. 571.

Genus Buceros ab aliis omnibus avibus facillime dignoſcitur ob roſtrum ingens et immodicum; primo ſane intuitu, deformitati potius fortuitæ et enormi, quam conſtanti perfectoque Naturæ artificio ſimilius. Cuinam commodo inſerviat roſtrum hoc inuſitatum difficile eſt dicere; nec de hac re aliquid conjicere poſſum præter quod jampridem obſervarunt plurimi phyſici; poſſe nempe illud ea de cauſa dari, ut contra

 hoſtes

hoſtes potentiores, ſiquando cum illis confligitur, melius decertetur.

In pleriſque hujus generis ſpeciebus pars illa ſuperioris maxillæ quæ prominet, recta eſt: at in ſpecie de qua jam loquimur, reeurvatur; unde et ipſa avis nomine *Rhinocerotis* diſtinguitur. Indiam incolit Orientalem, et in inſula Java, nec non in Sumatra, in inſulis etiam Philippenſibus frequenter conſpicitur. Carnes putridas ſertur comedere, viſceraque animalium incredibili lætitia deglutire.

Magnitudine Meleagridi Gallopavoni Linnæi non longe eſt inferior. Colores ſunt albi nigrique, ut repræſentat tabula. Roſtrum uncias decem eſt longum; cornuque ſeu proceſſum ſuper mandibulam ſuperiorem gerit incurvatum, linea longitudinali nigra notatum. Mandibula ſuperior ad baſin rubra eſt, indeque ad apicem albo-flaveſcens: inferior pallida eſt, baſi nigra.

NATIONAL MUSEUM OF VICTORIA

THE GREAT HORNBILL, OR RHINOCEROS-BIRD.

Generic Character.

Bill convex, large, and bent, with a protuberance on the upper mandible.

Noſtrils ſmall, and ſeated behind the baſe of the bill.

Tongue ſmall? ſharp?

Feet formed for walking, *viz.* three toes forward, one backward.

Specific Character, &c.

BUCEROS with a recurved mandibular horn.

HORNED INDIAN RAVEN, or RHINOCEROS-BIRD.

Will. Ornithol. p. 127.

The genus to which this bird belongs, is above all others diſtinguiſhed by the extraordinary ſtructure of the beak, which at firſt view has rather the appearance of ſome enormous deformity, or irregular monſtroſity, than of a natural production. What is the intent of Nature

Nature in the formation of this ſingular beak, is not yet clearly inveſtigated; it has been ſuppoſed, (and not without a conſiderable degree of probability) that the birds of this genus, having ſome very powerful enemies, with which they may have occaſional conflicts, are provided with this immoderate beak as a defenſive weapon.

In moſt of the ſpecies, the prominent part on the upper mandible is of a ſtraight form; but in the preſent ſpecies it is turned backwards in a moſt ſingular manner; and it is from this circumſtance that the bird has obtained its common title of Rhinoceros-bird. It is a native of the Eaſt-Indies, and is often found in Sumatra and Java, and the Philippine Iſlands. It is ſaid to feed on carrion, and to be particularly fond of the entrails of animals.

This bird is not much inferior in ſize to a turkey, and its colours are as repreſented in the plate; viz. black and white. The beak is about ten inches long, and the horn or curved proceſs on the upper part, is marked by a longitudinal line of black. The upper mandible is red at the baſe, and of a whitiſh yellow as it approaches the tip. The lower one is of a pale colour, with a black baſe.

ACARUS AUTUMNALIS.

Character Genericus.

Pedes octo.
Oculi duo, ad latera capitis.
Tentacula duo, articulata, pediformia.
Lin. Syſt. Nat. p. 1022.

Character Specificus.

ACARUS globoſo-ovatus ruber, abdomine poſtice ſetoſo.

Omnibus fere nimis notum eſt moleſtiſſimum hoc animalculum, menſibus præcipue Auguſti et Septembris. Acaro vulgari multo minus eſt, cutique affixum unguibus, præſertim tentaculis duobus brevibus ſupra pedes anteriores ſitis, viſu difficillimum eſt, nec ſine laceratione avelli poteſt. Quamvis celeriter currat acarus autumnalis, tardior tamen eſt multis ejuſdem generis. Cuicunque corporis parti ſe affixerit, exoritur ibi tumor magnitudine piſi, cum ſumma prurigine.

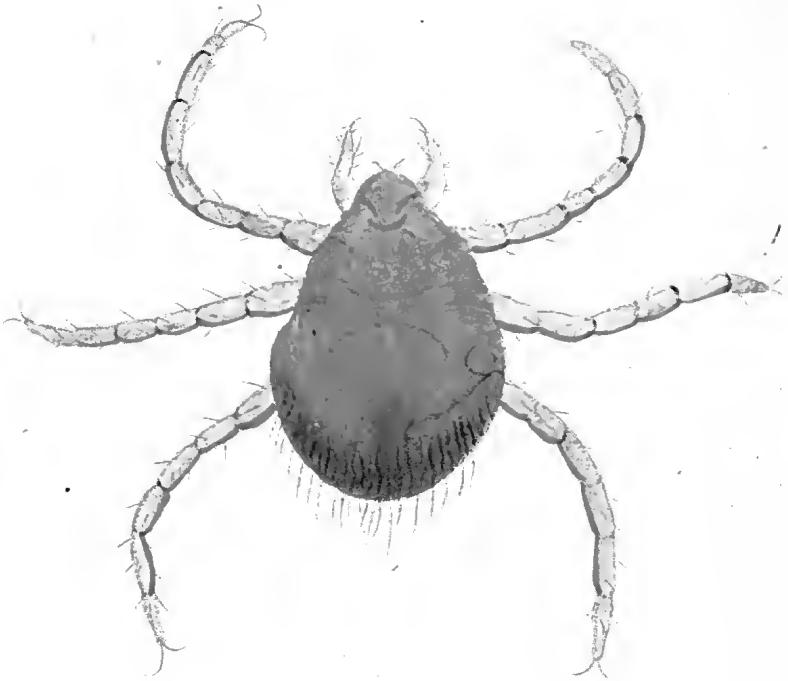
Color huic animalculo eſt vivide ruber, et ope microſcopii, pars corporis poſterior ſetis rigidis albiſque veſtiri videtur. Roſtrum, quod interdum viſibile eſt, ſæpius intra thecam reconditum, tubulatum eſt. A ſummo capite prodeunt parvula duo ſpicula, utrinque extrorſum ſpectantia. Diſcurrunt hæc inſecta ſuper

vegetabilia, præcipueque ſentiuntur ab illis qui inter gramina et ſegetes ambulaverint.

Narrat Dominus White in hiſtoria ſua de Selborne in agro Hamptonienſi, cretaceas ibi regiones illis adeo infeſtari, ut cuniculariorum retia rubro colore tingantur, ipſique homines morſu immodico irritati, non raro febricitent.

De hac acari ſpecie ſilent Linnæus et Fabricius: curſim et obiter deſcribitur in Bakeri libro ſecundo de microſcopiis qui et figuram addidit; quæ cum ab exſiccato inſecto delineata ſit, veram ſimilitudinem vix ſatis exprimit.

Qui ipſiſſimum animalculum commodiſſime ſpectare velit, duobus vitri fruſtulis leviter interpoſitum in microſcopio examinet. Hoc modo membra omnia facillime explicabuntur, ſine laceratione aut injuria.



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THE
AUTUMNAL ACARUS,
OR
HARVEST-BUG.

Generic Character.

Eight *Legs.*
Two *Eyes,* ſituated on the ſides of the head.
Two *Tentacula,* jointed, and ſhaped like feet.

Specific Character.

RED GLOBOSE-OVATE ACARUS, with the abdomen briſtly behind.

This troubleſome inſect will make itſelf ſufficiently known to moſt people during the months of Auguſt and September: it is much ſmaller than a common mite, and can but juſt be perceived upon the ſkin, to which it adheres by its claws, and particularly by the two ſhort arms or tentacula ſituated above the upper legs.

It can ſcarcely be ſeparated from the ſkin without violence, when once it has fixed itſelf: its motion when diſengaged is conſiderably quick, though by no means equal to that of ſome other ſpecies of acari. On the part where it fixes, it cauſes a tumor, generally about the ſize of a pea; ſometimes much larger, accompanied with a ſevere itching.

The

The colour of this dimunitive inſect is a bright red; and when microſcopically examined, the lower part of the body appears to be coated with ſtiff white briſtles. It ſeems to be provided with a tubular ſnout, which is generally concealed or ſheathed, but which may ſometimes be diſtinctly ſeen. On the top of the head are two little proceſſes or ſharp implements which turn outwards each way. Theſe inſects abound on vegetables, and are generally contracted by walking in gardens, amongſt long graſs, or corn fields.

According to Mr. White in his Hiſtory of Selborne, they abound to an uncommon degree in the chalky diſtricts of that part of Hampſhire. He relates that he has been aſſured that the warreners in the chalky downs, are ſo much infeſted by them, and that they ſwarm to ſo infinite a degree as to diſcolour their nets, and give them a reddiſh caſt, whilſt the men are ſo bitten as to be thrown into fevers. Vid. Hiſt. Selb. p. 89.

It is a ſpecies which ſeem to have eſcaped the notice of ſyſtematic Naturaliſts; and is not to be found either in Linnæus or Fabricius. A ſlight general deſcription of it is given in Baker's Employment for the Microſcope, accompanied by a figure; but as the figure was evidently taken from a dried ſpecimen, it gives but a very imperfect idea of the animal.

The only way of viewing it to advantage is to place it on a piece of glaſs and to lay another piece of glaſs immediately upon it, by which means it will be juſt ſo much compreſſed as to expand all its limbs without being injured; in this ſituation it may be viewed, eſpecially by a compound microſcope, to the greateſt poſſible advantage.

MANTIS GIGAS.

Character Genericus.

Caput nutans, maxillosum, palpis instructum.
Antennæ setaceæ.
Alæ quatuor, membranaceæ, convolutæ: inferiores plicatæ.
Pedes antici compressi, subtus serrato-denticulati, armati ungue solitario et digito setaceo laterali articulato; *postici* quatuor, læves, gressorii.
Thorax linearis, elongatus, augustatus.

Lin. Syst. Nat. p. 689.

Character Specificus.

MANTIS thorace teretiusculo, elytris brevissimis, pedibus spinosis.

Lin. Syst. Nat. p. 689.

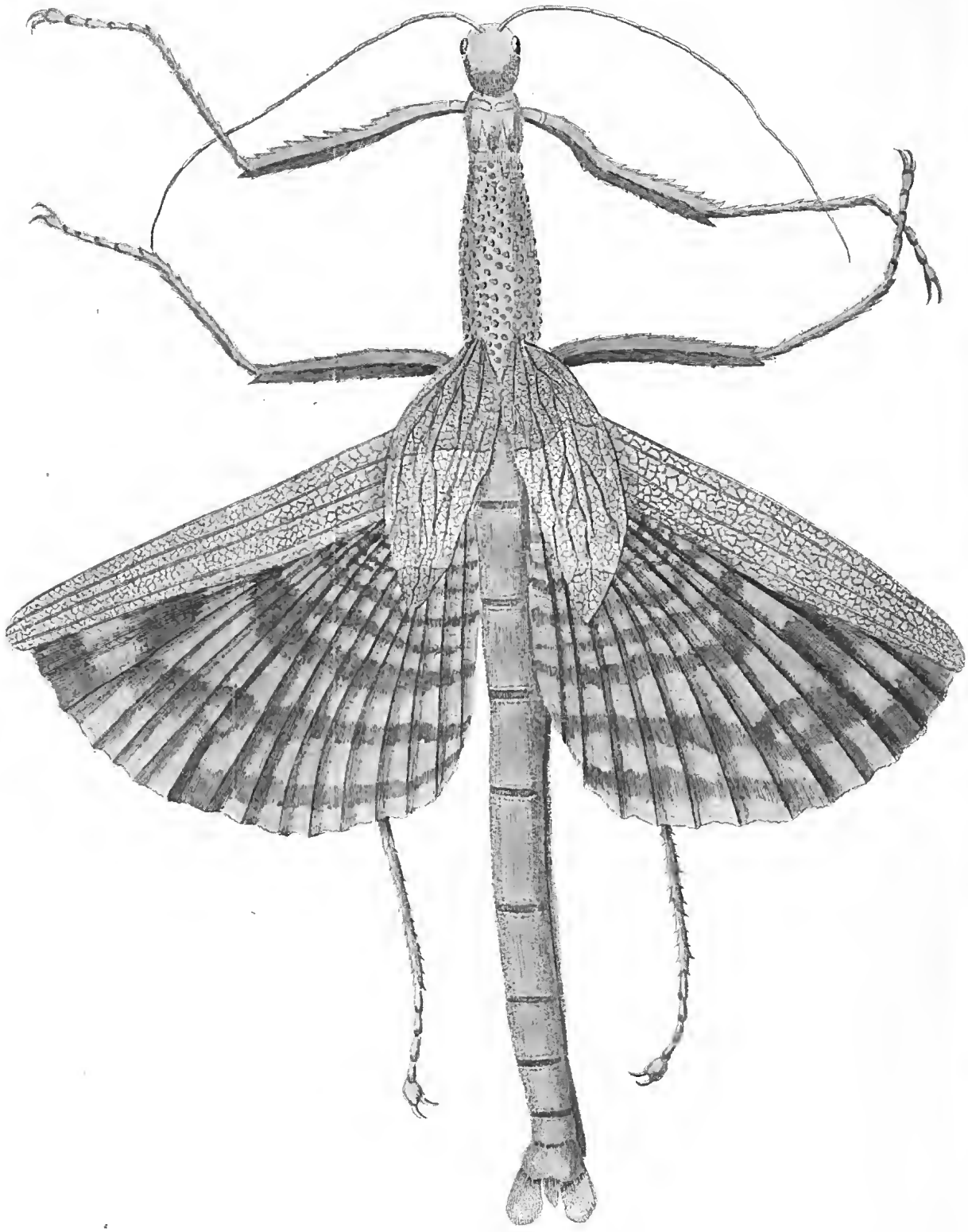
Formam magis miram et singularem quam quæ huic insecto est, vix animo possumus concipere. Quod si physicos solos audiremus, nec oculis nostris fides esset, dubitari etiam fortasse posset an tale ullud unquam revera extiterit. In insectis hujus classis, larva, seu animal imperfectum, ab imagine ipsa, seu insecto adulto non multum abludit, nisi quod alis careat, quarum illi (ut physicorum more loquar) rudimenta tantum sunt.

In musæis rarissime conspicitur insectum hoc alatum, plenum,

plenum, et perfectum; larvæ quippe ſolummodo in Europam advehi ſolitæ ſunt, in queis alarum, ut jam diximus, rudimenta vix ac ne vix conſpici poſſunt. Iſtiusmodi larva communiter *bacilli ambulantis* nomine cognoſcitur.

Singulare aliquid huic inſecto eſt, quodque perpaucis aliis ſui generis contingit, alas nempe non tantum thecis externis, ſed et elytris quaſi ſecundariis muniri, quæ tamen connexa videntur, quæque ipſas fortaſſe alas ab injuriis ſecuriores reddant.

Mirum et rarum hoc inſectum Inſulam Amboynam inhabitat; ipſumque ſpecimen unde depingitur hæc noſtra figura, in Muſæo Leveriano tam belle exſiccatum, ut nihil ſit perfectius, aſſervatur.



London Published Sept.r 1.st 1790 by T.P. Nodder & Co.s No.s Brewer Street.

THE GREAT MANTIS.

Generic Character.

Head unſteady: Mouth armed with jaws, and furniſhed with palpi.

Antennæ ſetaceous.

Wings four, membranaceous, convoluted: the lower ones plicated.

Feet anterior compreſſed, ſerrated beneath, armed with a ſolitary claw and lateral jointed proceſs; *poſterior* four, ſmooth, formed for walking.

Thorax linear, elongated, and narrowed.

Specific Character.

MANTIS with roundiſh rough thorax, very ſhort elytra, and ſpiny feet.

Imagination can hardly figure to itſelf a creature of a more ſingular appearance than this inſect; and had we only received the accounts of authors, without having ſeen the animal itſelf, we might be inclined to queſtion the truth of its exiſtence. In inſects of this tribe the animal in its incomplete ſtate, or that which is analogous to the caterpillar-ſtate in the butterfly-tribe, differs not much from the appearance of the in-

ſect

ſect in its complete form, except in not being furniſhed with wings.

This creature is very rarely met with in collections in its complete or winged form; being generally ſeen in the leſs advanced growth before-mentioned, in which the rudiments of the wings are but juſt viſible. In that imperfect ſtate it has commonly been deſcribed under the title of the walking ſtick.

A moſt ſingular circumſtance in this inſect, (and which takes place in but very few others of the genus) is, that, excluſive of the elytra, or wing caſes, there is an additional pair, which may be ſuppoſed to ſerve as a farther guard in ſecuring the wings themſelves: this ſecondary pair however ſeem to be connate with the wings themſelves, ſo as to make a part of them.

This moſt curious and uncommon inſect is a native of the Iſland of Amboyna, and the ſpecimen from which the figure was taken, is now in the higheſt preſervation in the Leverian Muſeum.

PICUS MINIMUS.

Character Genericus.

Roſtrum polyedrum, rectum: apice cuneato.
Nares pennis ſetaceis recumbentibus obtectæ.
Lingua teres, lumbriciformis, longiſſima, mucronata, apice retrorſum aculeata ſetis.
Pedes ſcanſorii.

Lin. Syſt. Nat. p. 173.

Character Specificus.

PICUS griſeus, vertice coccineo, occipite nigro albo punctato.

Species Picorum plurimæ exſtant; ſed omnium ſpecierum hactenus cognitarum hæc facile minima. Tabula ſiſtit aviculam magnitudine naturali. Cayanam in America Auſtrali incolit.

THE
LEAST WOODPECKER.

GENERIC CHARACTER.

Bill angular, ſtrait, cuneated at the tip.
Noſtrils covered with reflected briſtly feathers.
Tongue cylindric, worm-ſhaped, very long, ſharp-pointed, and (generally) aculeated at the tip with reflex briſtles.
Feet formed for climbing, viz. two toes forward and two backward.

Lin. Syſt. Nat.

SPECIFIC CHARACTER, &c.

CHESNUT-GREY WOODPECKER, with the top of the head crimſon, and the back part black ſpeckled with white.

Le tres petit PIC DE CAYENNE.

Buff. Oiſ. 7. p. 37.

MINUTE WOODPECKER.

Lath Synopſ. vol. 1. p. 596.

The ſpecies of Woodpeckers are very numerous; and of all the ſpecies yet diſcovered, this is by far the leaſt. The plate repreſents it in its natural ſize. It is a native of Cayenne in South America.

J. N.

London, Published Oct.r 1.st 1790. by F.P.a Nodder & Co.s 125 Bruton Street.

LACERTA SALAMANDRA.

Character Genericus.

Corpus tetrapodum, ecaudatum, nudum.
Lin. Syſt. Nat. p. 359.

Character Specificus, &c.

LACERTA cauda tereti brevi, pedibus muticis, palmis tetradactylis, corpore poroſo nudo.
Lin. Syſt. Nat. p. 371.

SALAMANDRA.
Geſn. Quadr. 80.

SALAMANDRA TERRESTRIS.
Ray Quadr. 273.

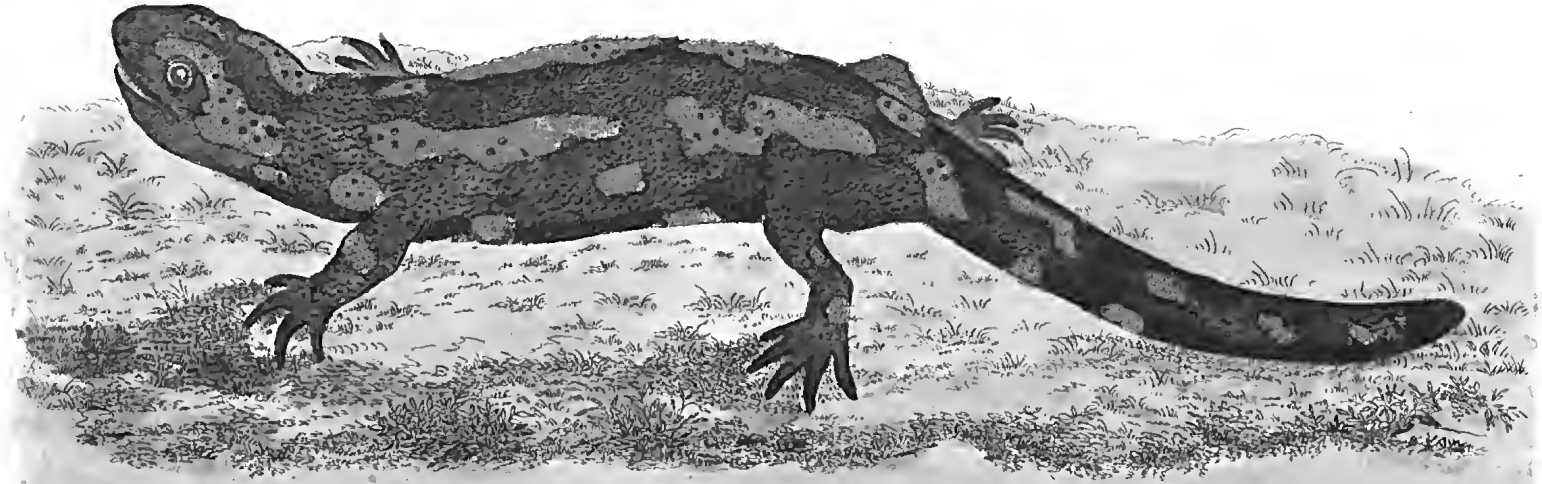
Novum omne et inauditum avida ſemper aure bibit gens humana. Quaſi vero ipſa Natura ſua non mille habeat miracula, nunquam defuere qui de monſtris et prodigiis, reliquaque inſani capitis farragine lubentiſſime ſcripſerint.

Iſtiuſmodi ſunt dracones illi ingentes ab antiquis deſcripti; nec non Lamia, fera nempe quæ corpus Pantheræ ſquamis veſtitum, cum capite et mammis mulieris ſortita eſt. Huc etiam referenda eſt Salamandra, quam vulgus inepte putat in igne illæſam vivere.

Eſt profecto Salamandra parva lacertæ ſpecies, in Germania,

Germania, aliisque Europæ regionibus minime rara; coloris nigri, apud latera ventremque maculis magnis longisque vivide flavis, sive aureis decorati. Maculæ hæ interdum magnitudine et figura variant. Tegitur hæc lacerta meatibus, sive foraminibus parvis, humorem quo plerumque madet animal, exudantibus. Hi meatus prope caput magis conspicui sunt quam in reliquo corpore. Cauda ad teretem accedit formam, et longitudine est mediocri, gradatim attenuata.

Hoc est illud animal de quo tot miræ et ridiculæ divulgatæ sunt fabulæ, quodque etiam nunc temporis a vulgo, peculiari quadam et ignota vi ignis ardorem repellere creditur. Est sane nihil aliud hæc vis antipyretica, quam *frigidi* animalis humida et naturalis temperies, cujus ope paulo longius ab ignis impetu manet inconsumptum, quam aliarum substantiarum major siccitas.



S.N.

London. Published Oct.r 1.st 1790 by T.L.P. Nailder & Co. N.o 28 Bowers Street.

THE
SALAMANDER.

GENERIC CHARACTER.

Body four-footed, tailed, naked.

SPECIFIC CHARACTER.

LIZARD with cylindric ſhortiſh tail and unarmed feet; the fore-feet divided into four toes, the body porous and naked.

There ſeems to prevail in the human mind an inherent propenſity to the marvellous. Not contented with the variety of real miracles which Nature through all her kingdoms ſo liberally exhibits, the world has long been entertained with the hiſtories of ideal wonders and imaginary monſters, which never exiſted but in the brains of their firſt deſcribers.

Amongſt beings of this claſs muſt be reckoned the large dragons deſcribed by the old writers; the Lamia, deſcribed as having the head and breaſts of a woman, with a body like that of a panther, and covered with ſcales: to this order muſt alſo be referred the ideal Salamander of the vulgar; which is thought capable of *living* unhurt in the fire.

The real Salamander is nothing more than a ſmalliſh lizard, which is found very frequently in Germany, and

and many other parts of Europe. It is of a black colour, ornamented on the ſides and belly with large and longiſh marks or ſpots of a rich yellow or gold-colour, and which are frequently ſomewhat irregular in their ſhape and diſpoſition. It is covered over with pores or ſmall foramina, through which exſudes the moiſture with which it is generally covered: theſe pores are moſt conſpicuous near the head: the tail is of a moderate length, and is roundiſh, or ſomewhat cylindrical, and gradually tapers to the end.

Such is the animal of which ſo many incredible tales have been recited, and which ſtill continues to be regarded by the ignorant as poſſeſſed of the power of repelling the effect of fire; a power which it poſſeſſes in no higher degree than a frog, a ſnail, or any other moiſt ſubſtance, which is not ſo immediately conſumed as thoſe of a drier nature.

JULUS MAXIMUS.

Character Genericus.

Pedes numeroſi, duplo utrinque plures quam corporis ſegmenta.
Antennæ moniliformes.
Palpi duo articulati.
Corpus ſemicylindricum.

Lin. Syſt. Nat. p. 1064.

Character Specificus.

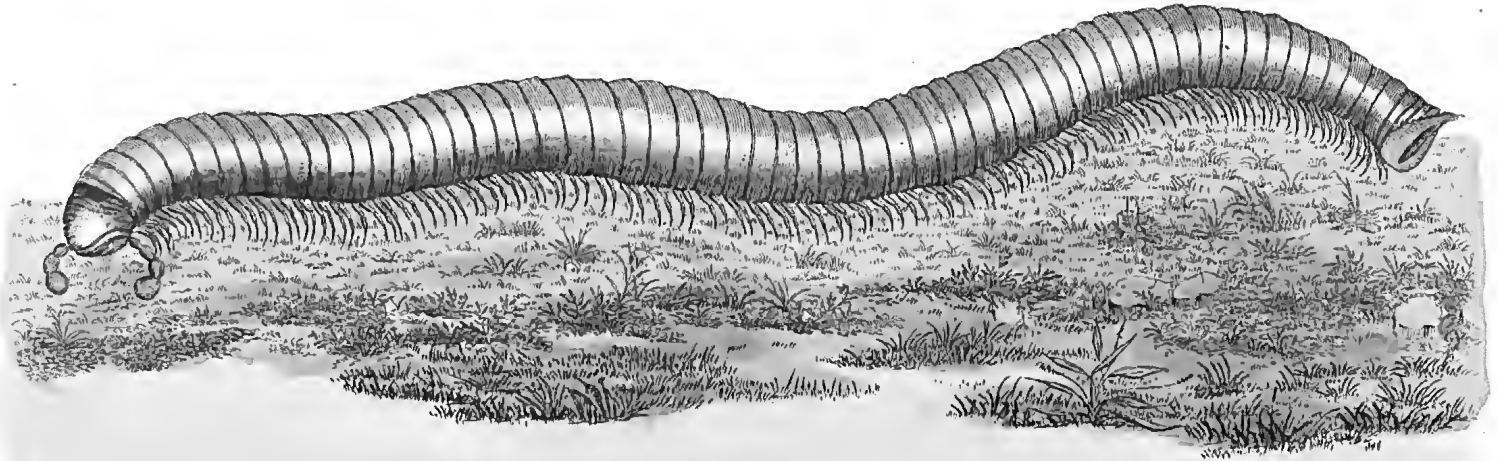
JULUS pedibus utrinque 134.

Lin. Syſt. Nat. p. 1066.

Hujus generis inſecta ſcolopendris ſunt valde affinia; niſi quod corpora habent cylindracea, non complanata; quodque ſingulis corporis articulis pedes utrinque duo ſint, quorum numerus duplo major eſt quam corporis articuli, cum in Scolopendris ſit par.

Animalia hæc, ſi aliquo modo perturbantur, in ſpiram planam ſe ſolent contorquere. Os habent maxillis validiſſimis munitum, quibus morſum immitem non tamen venenoſum poſſunt infligere. Species hic depicta eſt ſui generis maxima. In America invenitur, ſylvas et loca obſcura perreptans. Species etiam valde

valde ſimilis, ſi non eadem, in India Orientali exſtat. Color his inſectis eſt lucide fuſcus, paululum nigrans; crura autem, cum corporis parte inferiore ſubalbicant.



P. N.

London, Published Oct.r 1st 1790 by F.P. Vedder & Co.r N.o 25. Brewer Street.

THE GREAT JÜLUS.

GENERIC CHARACTER.

Feet numerous: twice as many on each ſide as the ſegments of the body.
Antennæ moniliform.
Palpi (or feelers) two, jointed.
Body ſemicylindric.

SPECIFIC CHARACTER.

JÜLUS with about 134 feet on each ſide.

Theſe inſects are very nearly allied to the Scolopendræ or centipedes, but their body, inſtead of being flattened, as in thoſe creatures, is nearly cylindrical; and every joint of the body is furniſhed on each ſide with two pair of feet; ſo that the number of feet on each ſide is double the number of joints, whereas in the Scolopendra they are equal.

Theſe animals, when diſturbed, roll themſelves up in a flat ſpiral. Their mouth is armed with a very ſtrong pair of jaws, with which they are capable of inflicting a ſevere bite: they are not however of a poiſonous nature. The ſpecies here figured is the largeſt of the genus. It is found in America, where it inhabits

woods and retired places; and a ſpecies extremely reſembling it, if not in reality the ſame, is found in the Eaſt-Indies. The colour of the inſect is a blackiſh brown, of a ſhining ſurface: the legs are whitiſh, as is alſo the under part of the body.

STRIX NYCTEA.

VAR. STRIATA.

Character Genericus.

Roſtrum aduncum (abſque cera.)
Nares pennis ſetaceis recumbentibus obtectæ.
Caput grande: auribus oculiſque magnis.
Lingua bifida.

Lin. Syſt. Nat. p. 131.

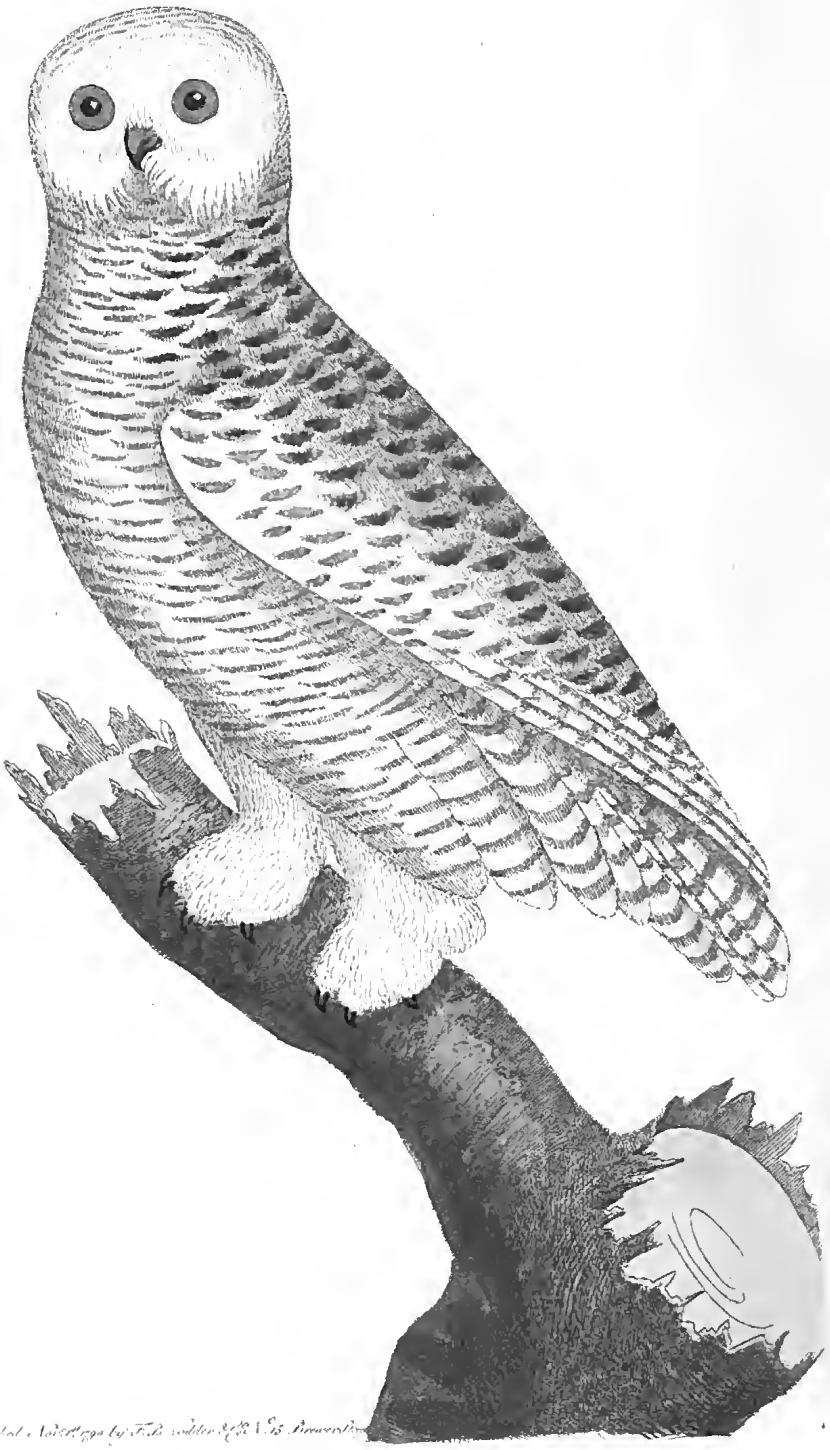
Character Specificus.

STRIX capite lævi, corpore albido maculis lunatis diſtantibus fuſcis.

Lin. Syſt. Nat. p. 132.

Avis hæc inter varietates eſt rariſſimas ac elegantiſſimas magnæ et niveæ ſtrigis Americam ſimul ac Europam ſeptentrionalem incolentis: plerumque eſt tota nivea, maculis aliquot lunatis fuſco-nigricantibus interſperſis: varietas autem de qua jam loquimur, eſt per totum fere corpus notis numeroſiſſimis fuſcis obducta, quæ verſus collum ſenſim anguſtiores fiunt, et in breves et interruptas faſcias concurrunt, quibus etiam tota avis ſubtus notata eſt: caput omnino albet; ut et pedes, qui, ut in aliis omnibus hujus ſpeciei ex-

emplis, ad ipſos ungues plumis velleri ſimillibus denſiſſime veſtiuntur: roſtrum ungueſque nigricant; irides flavent.



London Published 1 August 1822 by F.B. Tiddeman & Co. Brewer Street

THE

SNOWY OWL.

A STRIPED VARIETY.

Generic Character.

Bill crooked (not furniſhed with a cere).
Noſtrils covered with recumbent briſtly feathers.
Head large: *Ears* and *Eyes* large.
Tongue bifid.

Specific Character, &c.

HORNLESS WHITE OWL, marked with diſtant lunated ſpots.

SNOWY OWL.

Lath. 1. p. 132.

GREAT WHITE OWL.

Edwards 2. pl. 61.

The bird here figured is a moſt curious and beautiful variety of the great Snow-white Owl; a ſpecies which is a native both of the northern parts of Europe and of America, and in ſize is equal to the great Eagle-Owl. In its common or general ſtate it is of a ſnowy whiteneſs, with here and there a few ſmall ſcattered creſcent-ſhaped ſpots of blackiſh brown; but the ſpecimen now repreſented is ſpotted all over the upper ſurface with numerous marks of brown,

brown, which as they approach the neck become narrower, and run into ſhort interrupted faſciæ or bands, with which alſo the whole under ſurface of the bird is ornamented: the head is white; the feet alſo are perfectly white; and like all other individuals of this ſpecies, are moſt thickly coated with feathers to the very claws, ſo as to have the appearance of a very deep fur: the bill and claws are black: the irides yellow.

SIMIA SPHINX?

Character Genericus.

Dentes Primores utrinque quatuor, approximati.
Laniarii ſolitarii, longiores, hinc remoti.
Molares obtuſi.

Lin. Syſt. Nat. p. 34.
Cl. *Mammalia.*—Ord. *Primates.*

Character Specificus.

SIMIA SEMICAUDATA, ore vibriſſato, unguibus acuminatis, natibus calvis?

Lin. Syſt. Nat. p. 35.

Simiarum quæ communiter Papiones nominantur, duæ ſunt ſpecies adeo inter ſe ſimiles, ut revera licet diverſæ, plerumque tamen ab auctoribus, qui ſuis oculis viſas ſibi invicem collatas non ſedulo examinaverint, pro una eademque ſpecie deſcriptæ ſint: Simia nempe *Sphinx* et Simia *Maimon* Linnæi.

Præcipue diſtinguuntur diverſa magnitudine: Sphinge enim multo minor eſt Maimon: ſed diſcrepat et vultus color: Sphinx enim naſum habet medium ſanguinei ruboris, Maimon obſcure tantum incarnatum. Sphingis etiam natibus multo vividior eſt

eſt rubor, regionique lumborum color omnino cæruleo-violaceus, qui in iiſdem partibus alterius vix et ne vix conſpici poteſt. Ad cætera vero adeo ſunt affines hæ duæ ſpecies ut non mirum ſit ſi incertum diſcrimen plurimos primo viſu fefellerit.

Rariſſimus eſt Simiæ Sphingis in Europa conſpectus; Maimonis frequentior, et fere quotidianus. Utræque Africæ calidiores regiones inhabitant. Speciatim notandum eſt nomina et ſynonima harum ſpecierum ſcriptores communiter permiſcuiſſe: Linnæi enim Maimon multo melius cum hac noſtra ſpecie convenit quam cum illa quam ipſe nomine Sphingis deſcripſit. Suſpicor etiam (ut plane rem confitear,) hanc ipſam ſpeciem hic depictam non eſſe Sphingem Linnæi. Ad altitudinem quinque pedum et ultra creſcit Sphinx; Maimon vix tres ſuperat.

London Published Aug.st 1st 1792 by T.s P. Nodder & Co.s No.s Bow Church Yard

THE VARIEGATED BABOON.

GENERIC CHARACTER.

Front-Teeth in each jaw 4, placed near together.
Canine-Teeth ſolitary, longer than the others, diſtant from the remaining teeth, or grinders.
Grinders obtuſe.

SPECIFIC CHARACTER, &c.

SHORT-TAILED WHISKERED SIMIA, bare behind, with pointed nails, and violet-coloured loins.

GREAT BABOON.

Pennant Hiſt. Quadr. p. 173.

Amongſt the ſpecies of Simiæ called Baboons there are two, which though really very diſtinct from each other, have yet ſo great a general reſemblance, that ſome authors, not having had opportunities of examining and comparing both ſpecies, have confounded them with each other; theſe two animals are the Simia Sphinx and the Simia Maimon of LINNÆUS.

The moſt ſtriking difference is in point of ſize; the Sphinx being by much the largeſt of the two; but there is alſo a conſiderable difference in the colour of the

the face: the middle of the noſe, which in the Maimon is merely of a dull fleſh-colour, is in the Sphinx of a ſanguine red: the hinder part of the Sphinx is alſo of a much more intenſe red than in the Maimon; and the ſkin round the region of the loins is tinged with a very ſtrong and fine violet-colour, which is ſcarce, if at all perceptible in the Maimon. In other particulars, they ſo much agree that it is no wonder they ſhould have been frequently miſtaken for one and the ſame ſpecies.

The S. Sphinx is a much rarer animal than the Maimon, and indeed is but very ſeldom to be ſeen in Europe; whereas the Maimon is not uncommon in moſt exhibitions of animals. Both ſpecies are natives of the hotter parts of Africa. It ſhould be particularly obſerved that a general confuſion ſeems to take place in the deſcriptions and ſynonyms of authors relative to theſe two animals; for the deſcription given by Linnæus of his S. Maimon agrees much better with our ſuppoſed Sphinx than with the ſpecies ſo named by Linnæus. I am even inclined to ſuſpect after all, that the S. Sphinx of Linnæus cannot be the animal here repreſented. The Sphinx grows to the height of upwards of 5 feet: the Maimon rarely exceeds 2 or 3 at fartheſt.

PAPILIO MENELAUS.

Character Genericus.

Antennæ apicem verſus craſſiores, ſæpius clavato-capitatæ.

Alæ ſedentis erectæ ſurſumque conniventes (*volatu* diurno).

Lin. Syſt. Nat, p. 744.

Character Specificus, &c.

PAPILIO alis dentatis; ſupra cæruleis nitidiſſimis; ſubtus nebuloſis, punctis fuſcis.

Lin. Syſt. Nat. p. 749.
Eq. Achivi.

Merian Surin. t. 53.
Cram. Inſ. 2. t. 21.
Clerk. Icon. t. 21. f. 1.

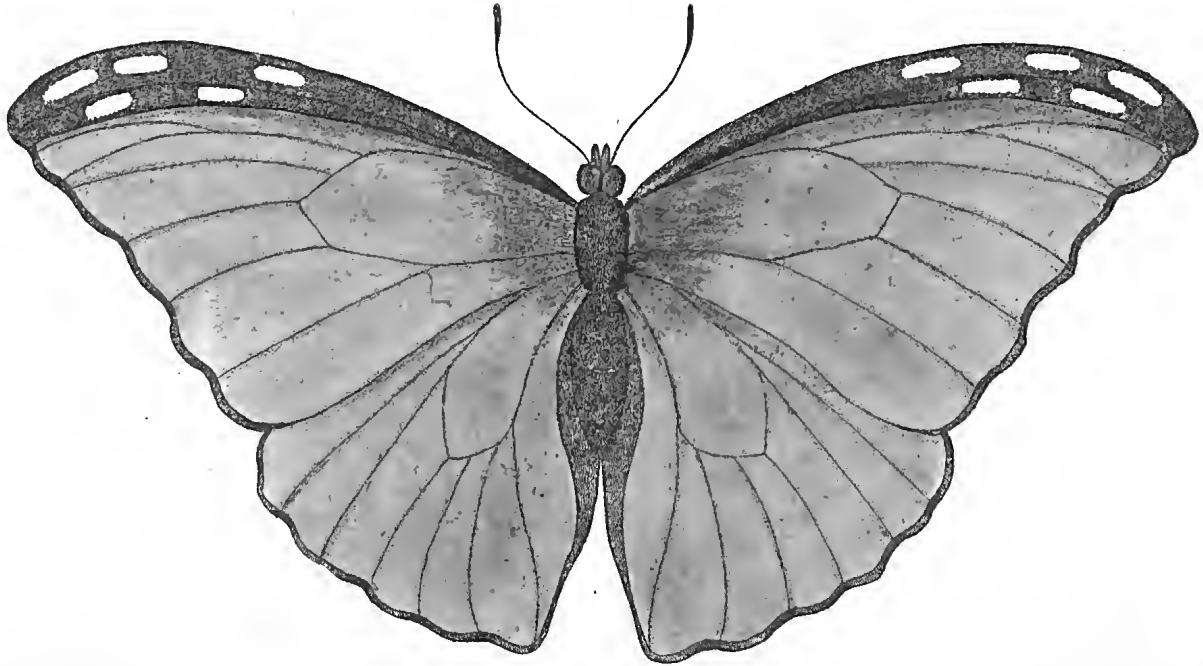
En ſuperbientis Naturæ miraculum! eximiæ venuſtatis inſectum! vividos adeo colores ſortitum, ut vix ulla arte ad vivum poſſint exprimi.

" Color alarum cæruleus paginæ ſuperioris (inquit Linnæus) adeo politus nitiduſque, ut vix ſimile in rerum Natura conſpiciatur." Mirificus hic paginæ ſuperioris ſplendor a ſobrio et modeſto paginæ inferioris colore longiſſime diſtat; qui tamen ocellis ferrugineis margine nigro circumſcriptis, pupillaque albicante

gemmatus, ſui generis pulchritudinis exemplar non mediocre cenſetur.

Externa hæc et interna diverſitas, (ſi cauſam liceat quærere) Papilionem ab avibus fortaſſe ſecuriorem reddat, ut nempe ab hoſtibus minus facile diſcerni queat, dum alis clauſis quieſcit, quam cum alis expanſis pleno ſplendore effulſerit.

Americæ eſt incola, et ab eruca magna flaveſcente, ſpinis nigricantibus armata, originem ducit.



London. Published Nov.r 1st 1790 by J.R. Vallder & Co.No 58 Broad Street.

MENELAUS,

OR THE

SILVER-BLUE BUTTERFLY.

Generic Character.

The *Antennæ* or *Horns* thickening towards the upper part, and generally terminating in a knob, or club-ſhaped tip.

The *Wings* (when ſitting) erect, and meeting upwards. (*Flight* diurnal.)

Specific Character, &c.

BUTTERFLY with indented wings; the upper ſurface of a brilliant blue, the lower clouded-brown; and marked with large ocellated ſpots.

Mer. Surin. t. 53.

Cram. Inſ. 2. t. 21. *Clerk.* ic. t. 21. f. 1.

So uncommonly bright and brilliant is this ſuperb inſect, that it can but faintly be expreſſed by the utmoſt efforts of artificial colouring; and may ſerve as an inſtance, amongſt many others, of the inimitable beauty which Nature alone can produce.

LINNÆUS

Linnæus in his deſcription of this inſect obſerves, that the blue on the upper ſurface is ſo poliſhed and lively that ſcarce any other natural object can come in competition with it. On the contrary the under ſurface of the ſame animal exhibits an example of a ſpecies of beauty reſulting from a varied combination of the plaineſt and moſt ſober colours; the ground colour being brown ſlightly ſtreaked with higher ſhades, and marked by ſeveral very large ocellated ferruginous ſpots with dark rings and white pupils.

If it were not almoſt bordering on temerity to attempt a reaſon for this ſtriking difference between the two ſurfaces of the ſame inſect, one might ſuppoſe that this ſobriety of colouring on the lower ſide, is intended in ſome meaſure to ſecure the animal when ſitting at reſt, with its wings cloſed, from the depredations of birds, which are leſs likely to be attracted in this ſtate than by the full luſtre of its expanded plumage.

It is a native of South America, and proceeds from a large yellow caterpillar, beſet with black ſpines.

PSITTACUS MAGNIFICUS.

Character Genericus.

Roſtrum aduncum: mandibula ſuperiore mobili, cera inſtructa.
Nares in roſtri baſi.
Lingua carnoſa, obtuſa, integra.
Pedes ſcanſorii.

Lin. Syſt. Nat. p. 139.

Character Specificus.

PSITTACUS brachyurus ſubcriſtatus niger, fronte humeriſque gilvo maculatis, cauda medio rubra nigro faſciata.

Novæ Hollandiæ inſula, dignior ſane quæ Continens Auſtralis vocetur, alter quaſi phyſicorum orbis, plurima animalia, reliquis regionibus incognita pergit ſuppeditare. Nulli tamen alii generi uberior acceſſit ſpecierum copia quam pſittacino, quarum lautiſſimæ vel ipſius Novæ Hollandiæ vel inſularum adjacentium ſunt incolæ.

Inter ſpecies haſce novas vix venuſtior eſt Pſittaco Magnifico, qui ſane menſura maximos Pſittacos *Macaos* dictos, phyſiciſque notiſſimos æquat; in illa autem generis diviſione recte diſponitur, cui cauda non lanceæ ad inſtar producta et acuminata eſt, ſed apice quadrato, ſeu ex rectricibus fere æqualibus conſtat.

Color generalis huic avi niger eſt. Caput leviter criſtatum plumis denſiſſime veſtitur, quarum extremitates maculis gilvis, ut plurimum ſcatere ſolent. Maculantur quoque humeri eodem modo, et in aliquibus ſpeciminibus latera corporis femoraque faſciis gilvis anguſte tranſverſeque notantur. Roſtrum maximum et validiſſimum cornei eſt coloris, ſeu obſcure fuſci. Crura pedeſque craſſa et robuſta, roſtroque fere concoloria. Caudæ imo colori, coccineo nempe, tranſverſe ſuperadditæ ſunt faſciæ numeroſæ nigerrimæ; et utrinque prope rachin pennarum coccineus color fere in flavum langueſcit. Baſin apicemque cauda penitus nigra eſt.

Tota avis tam magnificum oſtendit aſpectum ut inter principes ſui generis merito numeretur. Specimina aliquando paululum variant: color ſcilicet caudæ coccineus non in faſcias numeroſas nigro diſtinctas diſponitur, ſed latam tranſverſamque aream intemerati ruboris in medio exprimit.

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THE MAGNIFICENT COCKATOO.

GENERIC CHARACTER.

Bill hooked. Upper mandible moveable.
Noſtrils round, placed in the baſe of the bill.
Tongue fleſhy, broad, blunt at the end.
Legs ſhort. Toes formed for climbing, viz. two forward and two backward.

SPECIFIC CHARACTER, &c.

EVEN-TAILED BLACK PARROT, with the head ſomewhat creſted, the front and ſhoulders ſpotted with buff, the middle of the tail red croſſed with black bars.

THE BANKSIAN COCKATOO.

Latham's Synopſ. Suppl. p. 63.

New Holland, which may not unjuſtly lay claim to the more dignified title of the Southern Continent, may be conſidered as a kind of new world to the Naturaliſt; and has already afforded ſeveral animals unknown to every other part of the globe. To no other genus, however, have ſuch large acceſſions of new ſpecies been added as to that of Pſittacus; of which ſome of the moſt ſuperb kinds appear to be natives of New Holland, and ſome of the Southern Iſlands.

Of theſe newly-diſcovered birds, one of the moſt auguſt in its appearance is that repreſented on the plate annexed. In ſize it is equal to the great Maccaws already ſo well known to Naturaliſts; but it belongs to a different ſection in the genus, and inſtead of being furniſhed with a lanceolate tail, as in thoſe birds, it has that part even at the end, or conſiſting of feathers of nearly equal length.

The general color of this bird is a deep black: the head is very full of feathers, and ſlightly creſted, and is commonly marked in front with ſeveral buff-coloured ſpots, owing to the tips of the feathers on that part being of this colour. Several ſpots of buff are alſo ſcattered over the ſhoulders, and in ſome ſpecimens the ſides and thighs are ſlightly barred with narrow faſciæ of buff. The bill is of a deep brown, or horn-color, and is uncommonly large and ſtrong. The legs and feet are thick and ſtout, and of nearly the ſame colour with the bill. The tail is moſt beautifully barred with deep ſcarlet and black; the firſt being the ground or predominant color, on which the latter is diſpoſed in numerous faſciæ. Near the ſhafts of the feathers on each ſide, the ſcarlet gradually declines into yellow: at the baſe and tip the tail is wholly black.

The whole bird is of ſo ſuperior a magnificence as juſtly to be regarded as one of the fineſt of its tribe. It is ſubject to ſome variation, and in ſome ſpecimens the ſcarlet on the tail, inſtead of being barred with black, forms one large tranſverſe band in the middle.

BOA CONSTRICTOR.

Character Genericus.

Scuta abdominalia.
Scuta ſubcaudalia (abſque crepitaculo).

Lin. Syſt. Nat. p. 373.
Cl. *Amphibia.* Ord. *Serpentes.*

Character Specificus.

BOA VARIEGATA, ſcutis abdominalibus 240, ſubcaudalibus 60.

Qui vaſta et mirabilia Naturæ opera nunquam αυτοπται contemplati ſunt, ii ſane quicquid varie de illis ſcripſerint peregrinatores, caute et dubitanter recipere ſolent; immo ſæpe utpote fabuloſum omnino rejiciunt. Inter hæc Naturæ magnalia jure numerandi ſunt ſerpentes illi ingentes, qui in nonnullis Indiæ, Africæ, et Americæ regionibus inveniuntur; quique in tantam magnitudinem adoleſcunt ut quadrupedia etiam majora ingurgitare poſſint; et longitudine adeo ſunt enormi, ut ſæpe pedes viginti, viginti-quinque, vel etiam triginta ſuperent. Horum temporis progreſſu multo rarior eſt conſpectus, illoſque probabile eſt regiones olim ſane deſertas et nunc excultas, populoſque frequentes reliquiſſe, et in teſqua deſerta et remota

remota exulaſſe. Spectantur tamen aliquando, hortos et loca habitaculis ſuis propiora perreptantes.

Felix ſane fauſtumque eſt humano generi mirandos hoſce ſerpentes veneno prorſus carere; ob molem tantum et robur timendos; quibus ſane adeo præpollent ut cervos alioſque majores quadrupedes, conſtringendo et amplexando enectos, lento hauſtu abſorbeant: et dein uſque ad ſtuporem et torporem ſatiati latent, detectique facile vel ſclopetis, vel aliis modis confici poſſint.

Cum prægrandes hos ſerpentes quaſi ad aliorum animalium perniciem natos contemplamur, horreſcamus illos et averſemur neceſſe eſt; ſi vero formam tantum et colores ſpectemus, non mediocrem illis ineſſe pulchritudinem lubentiſſime fatebimur. Color illis, uti et aliis hujus generis, diverſus eſt pro varia ætate; ut plurimum tamen eſt cinereus, per dorſum et latera plagis maculiſque oblongis, magnis, fuſco-rubentibus, ſeu ferrugineis, margine nigro circumſcriptis, et albo flavoque notatis variatus: venter plerumque flaveſcens albet.

Referunt hiſtorici totum Romanum exercitum, conſpecto immodico ſerpente, (quem veriſimile eſt ejuſdem ſpeciei fuiſſe cum illo qui in tabula depingitur), ingenti metu perculſum ſubito, et conſternatum fuiſſe. Immanem hunc ſerpentem Valerius Maximus ex libro Livii hiſtoriæ deperdito his verbis memorat.

" Quæ quia ſupra uſitatam rationem excedentia attigimus, ſerpentis quoque a T. Livio curioſe pariter ac facunde relata fiat mentio: Is enim ait in Africa apud Bagradam flumen tantæ magnitudinis anguem

fuiſſe

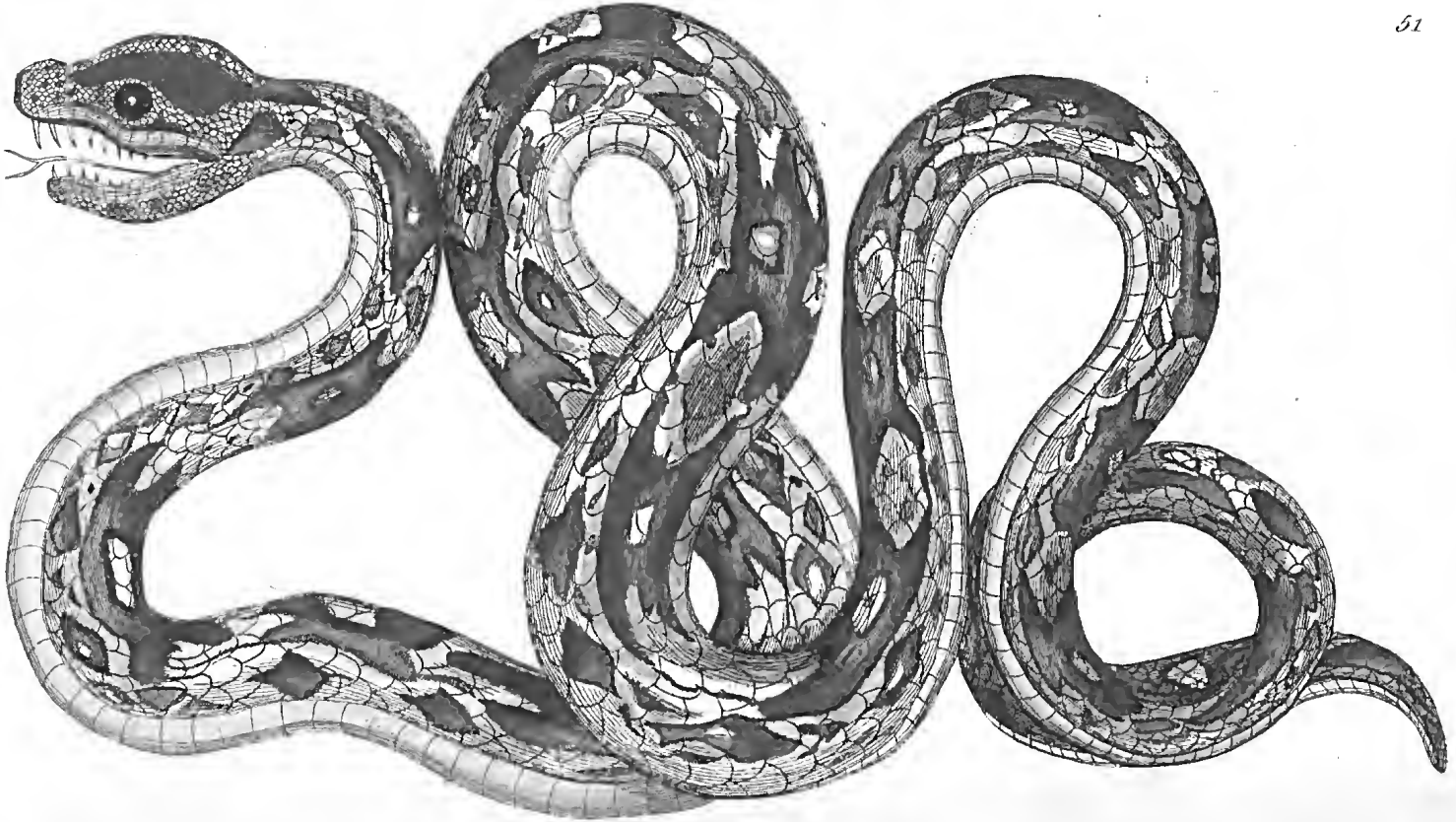
fuiſſe ut Attilii Reguli exercitum uſu amnis prohiberet; multiſque militibus ingenti ore correptis, compluribus cauda voluminibus eliſis, cum telorum jactu perforari nequiret, ad ultimum baliſtarum tormentis undique petitam, ſilicum crebris et ponderoſis verberibus procubuiſſe; omnibuſque et cohortibus legionibus ipſa Carthagine viſam terribiliorem: atque etiam cruore ſuo gurgitibus imbutis, corporiſque jacentis peſtifero afflatu vicina regione polluta, Romana inde ſummoviſſe caſtra: dicit belluæ etiam corium cxx pedes *longum in urbem miſſum.*" VAL. MAX.

Livium vero *ipſum* elegantibus ſupplementis æmulatus eſt Joannes Frienſhemius; audiant igitur velim lectores Frienſhemium miram rem ſuo more diſerte recitantem.

" Interea M. Regulus proxima quæque ſubigendo in loca pervenerat per quæ flumen Bagrada labitur: ad quod caſtra habentes Romanos improviſa peſtis et damno non mediocri, et terrore adhuc majore perculit. Magnitudinis enim portentoſæ ſerpens aquatum profectos milites invaſit; territiſque et nequidquam repugnantibus multos ingentis oris hiatu forbuit: alios ſpirarum voluminibus et caudæ verbere obtrivit: nonnullos ipſo peſtilentis halitus adflatu exanimavit: tantumque negotii M. Regulo faceſſere potuit, ut totis viribus cum eo de poſſeſſione amnis fuerit dimicandum. Quod ubi cum jactura militum fiebat, neque vinci aut vulnerari draco potuerat, duriſſima ſquamarum lorica, quidquid telorum ingereretur, facile repellente; confugiendum ad machinas, advectiſque balliſtis et catapultis velut arx quædam munita, dejiciendus

NATIONAL MUSEUM OF VICTORIA

ciendus hoſtis fuit. Poſt aliquot jactus in vanum emiſſos ingens ſaxum ſpina dorſi perfracta, vigorem impetumque formidalis monſtri reſolvit. Sic quoque difficulter confectum eſt, tanto cum horrore legionum et cohortium, ut *ſe oppugnare Carthaginem, quam alteram talem beſtiam malle* faterentur. Neque diutius ibi morari caſtra potuerunt, quin tabo infectas aquas, et omnem circa regionem fætore jacentis peſtifero adflatam fugerent. Non ſine rubore aliquo humanæ ſuperbiæ, quæ non raro viribus ſuis nihil negatum eſſe ſtolide putat. Exercitum certe Romanum imperatore M. Regulo, terra marique victorem unus anguis et vivus exercuit, et interfectus ſubmovit. Quare nec puduit Proconſulem hujus etiam hoſtis ſpolia Romam mittere, timoriſque ſui magnitudinem et victoriæ gaudium publico monumento fateri. Corium enim belluæ detractum in urbem devehendum curavit: quod centum viginti pedes longum fuiſſe dicitur; et in templo quodam ſuſpenſum, ad Numantini uſque belli tempora duraviſſe." Joan. Friensh. Suppl. Livian.



London. Published 1 Dec.r 1809 by Sam.l Neale 2 of the Nos. Brewers Street.

THE

GREAT BOA.

Generic Character.

Tranſverſe *Lamellæ* both on the abdomen and beneath the tail.

Specific Character.

VARIEGATED BOA with about 240 Lamellæ on the abdomen and 60 beneath the tail.

By thoſe who are unacquainted with the wonders of Nature, the deſcriptions given by Naturaliſts of ſome of the more ſtriking and ſingular animals, are received with a degree of cautious ſcepticiſm, or even rejected as exceeding the bounds of credibility. Amongſt theſe animals may well be numbered the prodigious ſerpents which are ſometimes found in India, Africa, and America; ſerpents of ſo great a ſize as to be able to ingorge even ſome of the larger quadrupeds, and of ſo enormous a length as to meaſure 20, 25, and 30 feet. There is reaſon to believe that theſe immenſe ſerpents are become leſs common now than ſome centuries backwards, and that in proportion as cultivation and population have increaſed, the larger ſpecies of noxious animals have been expelled from the haunts of mankind, and driven into the more diſtant and uncultivated tracts. They are ſtill however occaſionally ſeen, and ſometimes

times approach the plantations and gardens of the diſtricts neareſt to their reſidence.

It is happy for mankind that theſe gigantic ſerpents are not poiſonous; they are therefore to be dreaded only on account of their vaſt ſize and ſtrength, which latter is ſo great as to enable them to kill cattle, deer, and other animals by writhing themſelves round them, ſo as to cruſh them to death by mere preſſure; after which they ſwallow them in a very gradual manner, and when thus gorged with their prey, grow almoſt torpid with repletion; and if diſcovered in this ſtate may without much difficulty be diſpatched by ſhooting or by other methods.

Conſidered as one of the great deſtroyers of the animal world, this ſerpent muſt be viewed with horror; but if we take into conſideration only its form and colors, we cannot deny it a very great ſhare of external beauty: like many of its tribe, it is apt to vary in color, and appears in a more or leſs vivid ſtate according to the period of life in which it happens to be found; but it is generally of a greyiſh color, variegated on the back and ſides in the moſt curious manner with large oblong patches and ſpots of bright reddiſh brown, which are ſtill further decorated by having black margins, ſurrounded both internally and externally with ſtreaks of white and yellow: the belly is commonly of a yellowiſh white.

It was in all probability an enormous ſpecimen of this very ſerpent that once diffuſed ſo violent a terror amongſt the moſt valiant of mankind, and threw a whole Roman army into diſmay. Hiſtorians relate this

this ſurprizing event in terms of conſiderable luxuriance. Valerius Maximus thus mentions it from Livy, in one of the loſt books of whoſe hiſtory it was related more at large.

" And ſince we are on the ſubject of uncommon phænomena, we may here mention the ſerpent, ſo eloquently and accurately recorded by Livy; who ſays that near the river Bagrada in Africa a ſnake was ſeen of ſo enormous a magnitude as to prevent the army of Attilius Regulus from the uſe of the river; and after ſnatching up ſeveral ſoldiers with its enormous mouth, and devouring them, and killing ſeveral more by ſtriking and ſqueezing them with the ſpires of its tail, was at length deſtroyed by aſſailing it with all the force of military engines and ſhowers of ſtones; after it had withſtood the attack of their ſpears and darts: that it was regarded by the whole army as a more formidable enemy than even Carthage itſelf; and that the whole adjacent region being tainted with the peſtilential effluvia proceeding from its remains, and the waters with its blood, the Roman army was obliged to remove its ſtation: he alſo adds that the ſkin of the monſter, meaſuring 120 feet in length, was ſent to Rome as a trophy." Val. Max.

The learned Frienſhemius, in his Supplementa Livi-ana, has attempted a more ample and circumſtantial narrative of the ſame event, and it cannot be unſatisfactory to the reader to receive a quotation from an author, who has ſo happily imitated the manner of the great hiſtorian.

" In the mean time Regulus, every where victorious,

led

led his army into a region watered by the river Bagrada, near which an unlooked for misfortune awaited them, and at once affected the Roman camp with conſiderable loſs, and with apprehenſions ſtill more terrible; for a ſerpent of prodigious ſize attacked the ſoldiers who were ſent for water, and while they were overwhelmed with terror, and unequal to the conflict, engulphed ſeveral of them in its enormous mouth, and killed others by writhing round them with its ſpires, and bruiſing them with the ſtrokes of its tail: and ſome were even deſtroyed by the peſtilential effluvia proceeding from its breath; it cauſed ſo much trouble to Regulus that he found it neceſſary to conteſt the poſſeſſion of the river with it by employing the whole force of his army; during which a conſiderable number of ſoldiers were loſt, while the ſerpent could neither be vanquiſhed nor wounded; the ſtrong armour of its ſcales eaſily repelling the force of all the weapons that were directed againſt it; upon which recourſe was had to battering engines; with which the animal was attacked in the manner of a fortified tower, and was thus at length overpowered. Several diſcharges were made againſt it without ſucceſs, till its back being broken by an immenſe ſtone, the formidable monſter began to loſe its powers, and was yet with difficulty deſtroyed; after having diffuſed ſuch a horror amongſt the army, that they confeſſed they would rather attack Carthage itſelf than ſuch another monſter. Nor could the camp continue any longer in the ſame ſtation, but was obliged to fly; the water and the whole adjacent region being tainted with the peſtiferous effluvia. A

moſt

moſt mortifying humiliation to human pride! which ſometimes vainly imagines nothing capable of reſiſting the powers of man. Here at leaſt was an inſtance of a whole Roman army under the command of Regulus, and univerſally victorious both by ſea and land, oppoſed by a ſingle ſnake, which conflicted with it when living, and even when dead obliged it to depart. The proconſul therefore thought it no diminution to his dignity to ſend the ſpoils of ſuch an enemy to Rome, and to confeſs at once the greatneſs of his victory and his terror by this public memorial; for he cauſed the ſkin of the ſnake to be taken off, and ſent to the city; which is ſaid to have meaſured 120 feet: it was ſuſpended in a temple, and remained till the time of the Numantine war." FRIENSH. SUPPL. LIV.

VOLUTA ARAUSIACA.

Character Genericus.

Animal Limax.
Teſta unilocularis, ſpiralis.
Apertura ecaudata, ſubeffuſa.
Columella plicata: Labio Umbilicove nullo.
Lin. Syſt. Nat. p. 1186.

Character Specificus, &c.

VOLUTA teſta alba faſciis tranſverſis fulvis, columella ſex-plicata.

VEXILLUM ARAUSIACUM.

Rara hæc et perelegans concha generis Linnæani *Volutæ* nominati eſt ſpecies. Hanc ipſam ille nullibi deſcripſit. Communiter illam appellaverunt phyſici *Vexillum Arauſiacum*. Indica eſt concha, et præcipue in inſula Amboyna reperitur.

Fig. 1. Teſta adulta. Fig. 2. Teſta junior.

THE
ORANGE FLAG,
OR
ORANGE-STRIPED VOLUTE.

Generic Character.

Animal reſembling a Limax or Slug.
Shell unilocular, ſpiral.
Pillar or Column twiſted or plaited.

Specific Character, &c.

WHITE VOLUTE, with orange-coloured tranſverſe bands, and (generally) ſix plaits on the column.

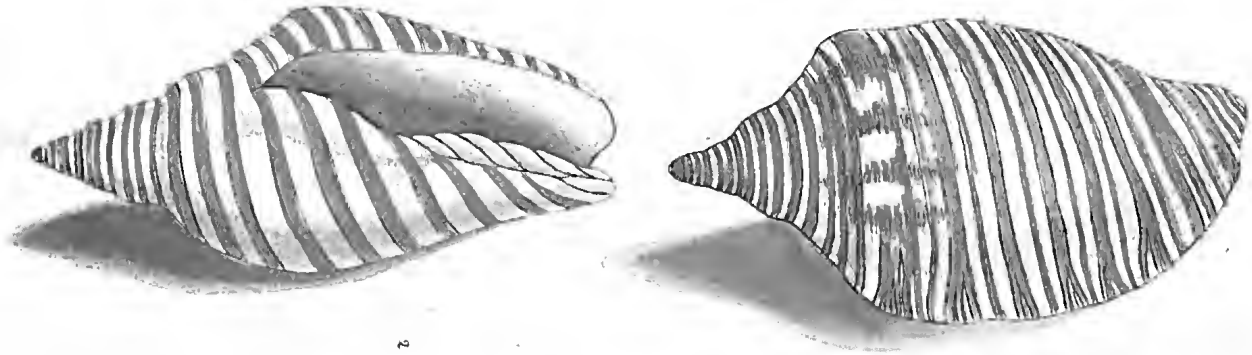
LE PAVILLON D'ORANGE.

Argenv. Append.

Knorr. part 5, *t.* 1. *f.* 1.

The elegant and rare ſhell here figured, belongs to the Linnæan genus Voluta, but is not amongſt the ſpecies deſcribed by Linnæus. Its general name amongſt collectors is the Orange-Flag. It is an Eaſt-Indian ſhell, and is principally found in the iſland of Amboyna.

Fig. 1. The adult ſhell. Fig. 2. A ſomewhat younger ſhell.



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PSITTACUS GLORIOSUS.

Character Genericus.

Roſtrum aduncum: mandibula ſuperiore mobili, cera inſtructa.
Nares in roſtri baſi.
Lingua carnoſa, obtuſa, integra.
Pedes ſcanſorii.

Lin. Syſt. Nat. p. 139.

Character Specificus.

PSITTACUS macrourus ſanguineus, dorſo nigro maculato, alis caudaque cyaneis.

Pſittacus hic formoſus pleraſque ſui generis antecedit pulchritudine et colorum ſplendore. Ad ſpecies *macrouras* ſeu *longicaudas* pertinet. Color ejus generalis eſt vivide ſanguineus, corporis parte inferiore paulum pallidiore. Plumæ dorſi nigræ ſunt, rubro cinctæ: tectrices alarum minores lucidiſſime cæruleæ: verſus mediam alarum partem color cæruleus magis cyaneus eſt, non ſine virore aliquo obſcuriore: ſuper axillas color plumarum niger in maculam tranſverſam nigram apicibus acuminatis diſcurrit: cauda prælonga ad imum eſt cuneatior.

Novam Hollandiam incolit hæc avis, et magnitudine Pſittacum Alexandri æquat, vel paulo ſuperat.

Feminæ multo minus vividus eſt color; dorſumque olivaceo tinctum.

THE SPLENDID PARROT.

Generic Character.

Bill hooked. Upper mandible moveable.
Noſtrils round, placed in the baſe of the bill.
Tongue fleſhy, broad, blunt at the end.
Legs ſhort. Toes formed for climbing, viz. two forward and two backward.

Specific Character, &c.

LONG-TAILED SANGUINE-RED PARROT, with the back ſpotted with black, the wings and tail bright-blue.

PENNANTIAN PARROT.

Latham's Synopſ. Suppl. p. 61.

This beautiful bird exceeds moſt of its genus in the ſplendor of its colors. It ranks amongſt the Pſittaci Macrouri, or Long-tailed Parrots. Its general color is a vivid ſanguine-red, ſomewhat paler on the lower part of the body; and the feathers on the back are black, margined with red. The ſhoulder-feathers, or ſmaller coverts, are of a moſt brilliant blue: towards the middle part of the wing the blue becomes much deeper, and ſlightly tinged with green. Above the axillæ the black color of the back forms on each ſide a tranſverſe

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tranſverſe ſpot with ſharpened extremities. The tail is very long, and cuneiform towards the tip.

This ſpecies is a native of New Holland, and is about the ſize of the common Ring-Parrakeet, or rather larger. The female is much leſs brilliant in color, and the back is of an olive green.

STAPELIA HIRSUTA.

Character Genericus.

Corolla contorta.

Nectarium ſtellula duplex in medio corollæ.

Pentandria Digynia.

Character Specificus, &c.

STAPELIA denticulis ramorum erectis.

Lin. Spec. Plantar. p. 316.

ASCLEPIAS AFRICANA AIZOIDES, flore pulchre fimbriato.

Comm. rar. 19. t. 19.

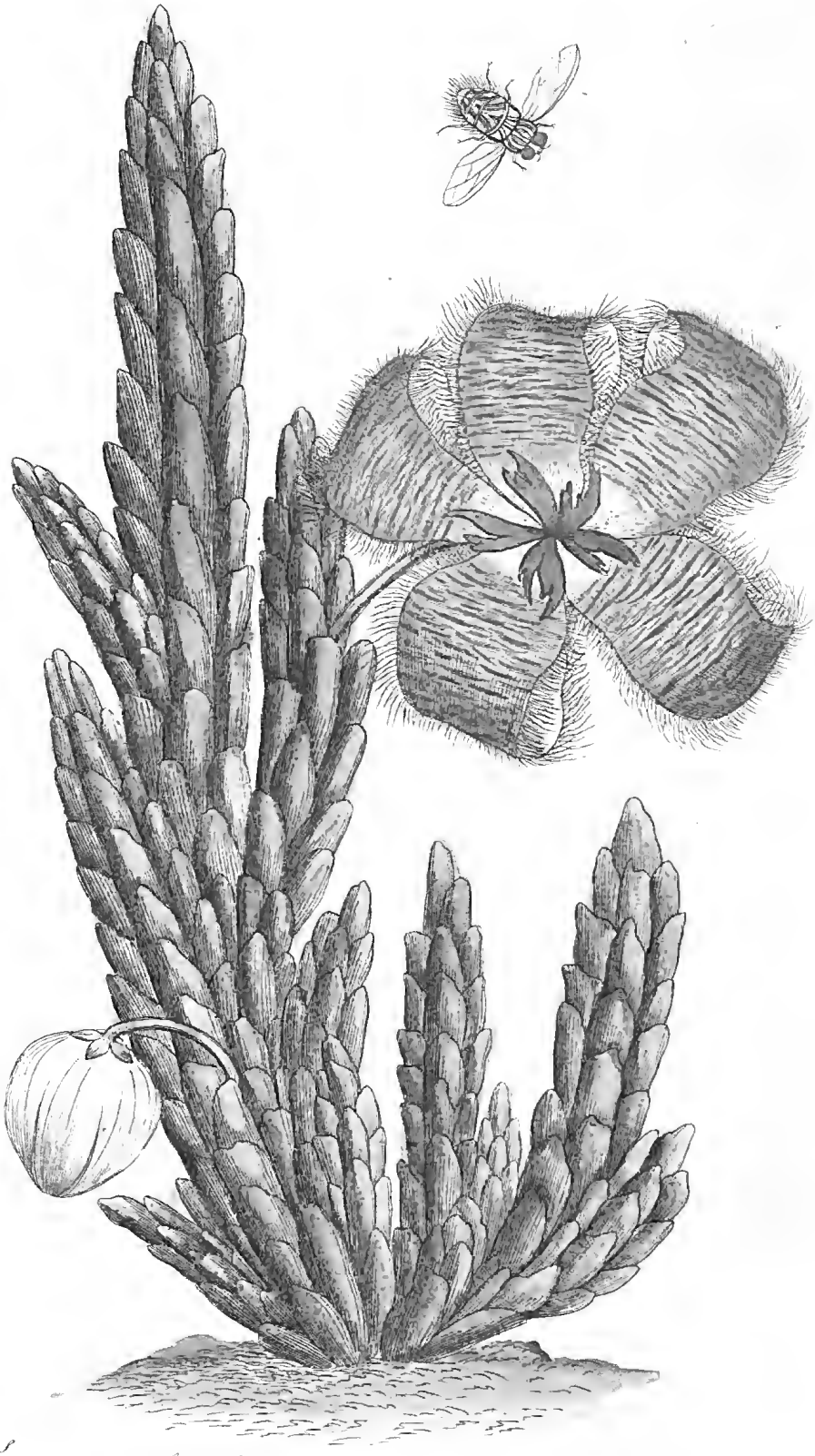
Inter pretioſiſſimas plantarum dotes merito numeratur odor ille gratiſſimus quem plurimæ emittunt, quo in colligendo, conſervando, augendo, ſubtiliter ſtudioſeque ſemper laboratum eſt. Suave-olentium vegetabilium tanta ſane eſt diverſitas, ut odores ſpeciatim recenſere vix poſſibile ſit. Ut taceam roſam, violam, dianthum, cæteramque copiam narium in hortis pleriſque repertam, genera Dioſmæ, Illicii, Nyctanthes, et Polyanthes, velut exempla ſuaviſſimæ et pollentiſſimæ fragrantiæ ſatis ſit proferre.

Huic aromaticorum ubertati opponuntur exempla aliquot contrarii odoris in generibus Ari, Sterculiæ, Lobeliæ, cæteriſque nonnullis; rara hæc quidem, quæ tamen ſatis probant Naturam in humani generis oblectatione

lectatione non ſemper verſari. Phalli ſpecies, in ſylvis, exeunte æſtate, non raro conſpecta, odorem quaſi carnis putridæ ſpargendo, inſecta multa carnivora, muſcas præcipue vulgares, ſeu carnarias ad ſe allicit, quæ in ſummitate plantæ catervatim conglomerantur, liquorem glutinoſum exinde copioſe effluentem avidiſſime exugentes.

Omnes autem hactenus cognitas, quæ more mortui cadaveris fætere ſolent, planta illa in tabula depicta longe ſuperat; cui tanta eſt odoris putridi graveolentia, ut e longinquo veniant muſcæ vulgares ſeu carnariæ Linnæi, ovaque ibi deponant; quibus excluſis, larvæ parvo tempore plerumque pereunt; qua in re unica ſeipſam decipere, ſuaque quaſi fruſtrare conſilia videatur Natura. Interdum tamen, ſi qua fides obſervatoribus, accidit ut aliæ muſcarum ſpecies, carnaria multo minores, in eodem flore ova ſua deponant, larvæque excluſæ, ob exiguitatem parvo cibo egentes, florem ipſum depaſcant; ad plenam magnitudinem perveniant, et in chryſalides convertantur, ex quibus muſcæ perfectæ poſtea erumpunt. Ita ſe rem habere demonſtrat experimentum a domino Hill memoratum, qui narrat larvas plurimas muſcarum, hoc ſolo flore enutritas, omnibus vicibus et permutationibus abſolutis, ad plenam et perfectam maturitatem adoleviſſe.

Africæ eſt indigena hæc planta, et in promontorio bonæ ſpei præcipue invenitur.



London, Published Jan.y 1st 1791 by F.P.C. Nodder & Co. No.15 Bower Street.

FETID STAPELIA,
OR THE
CARRION-FLOWER.

GENERIC CHARACTER.

Corolla ſlightly twiſted towards one ſide.
Nectary in form of a double ſtar in the middle of the corolla.

Pentandria Digynia.

SPECIFIC CHARACTER, &c.

STAPELIA with the denticles of the branches upright.

THE CARRION-FLOWER.

The fragrance emitted by the major part of the vegetable world is ſuch as to be regarded amongſt the moſt elegant and valuable attributes of plants; and the ingenuity of mankind has been ſtudiouſly employed in collecting, preſerving, and concentrating it. So great is the variety of vegetable perfumes that it is hardly poſſible to enumerate the different kinds. Without particularizing the roſe, the violet, the carnation, and many other common inhabitants of the garden, we might adduce the genera of Dioſma, Illicium, Nyctanthes, Polyanthes, and ſome others, as peculiar

peculiar examples of the richeſt and moſt exalted fragrance.

Amidſt this profuſion of ſweets in the vegetable kingdom there are occaſionally interſperſed ſome examples of a contrary odor: thus ſome ſpecies in the genera of Arum, Sterculia, Lobelia, and a few others, are convincing proofs that Nature does not always accommodate her productions to the immediate gratification of the human ſenſe.

A ſpecies of Morell, not uncommon in woods towards the latter part of the ſummer, has a ſmell ſo much reſembling that of putrid animal matter, as to attract ſeveral ſpecies of carnivorous inſects, and particularly flies, which are generally obſerved ſettled in great numbers on the top of the plant, and eagerly feaſting on the glutinous moiſture with which it abounds.

But of all vegetables yet known, which are poſſeſſed of a ſmell ſimilar to that of animal ſubſtances, the plant here figured is by far the moſt remarkable; and when in a ſtate of floreſcence, diffuſes a ſcent ſo powerfully cadaverous as to allure the common fleſh-fly, or blow-fly to depoſit its eggs on the flower, where they are hatched, and the young larvæ, for want of proper nutriment, commonly periſh ſoon afterwards; and thus Nature in this ſingle inſtance, almoſt ſeems to have deceived herſelf. If however we may rely on ſome obſervations, it happens ſometimes that other ſpecies of flies much ſmaller than the common fleſh-fly, depoſit their eggs in the flower, and when hatched, the larvæ being very ſmall, and not requiring much food,

do

do actually find a ſufficient nutriment from the flower itſelf, till the time of their change to chryſalis arrives; and after the uſual period become complete flies; and this appears to have been the caſe in an inſtance recorded by the late Sir JOHN HILL, where ſeveral larvæ of flies are ſaid to have paſſed through all their changes, though nouriſhed ſolely by the flower of this plant.

It is a native of Africa, and is principally found at the Cape of Good Hope.

SOREX BICOLOR.

Character Genericus.

Dentes Primores ſuperiores duo bifidi.

Inferiores quatuor : intermediis brevioribus.

Laniarii utrinque plures.

Lin. Syſt. Nat. p. 73.

Character Specificus, &c.

SOREX cauda mediocri, corpore ſupra nigricante, ſubtus albicante.

SOREX cauda mediocri ſubnuda, corpore nigricante, ſubtus cinereo.

Erx. Mamm. p. 124.

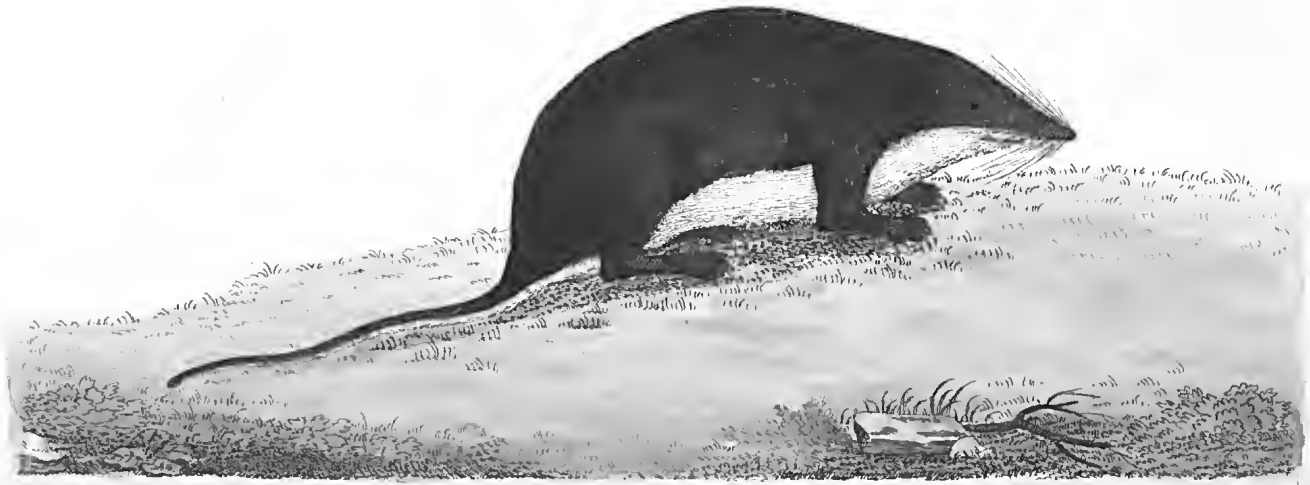
MUSARANEUS dorſo nigro ventreque albo.

Merret. pin. p. 167.

Inter quadrupedes Britanniæ rariores merito numeratur parvulus hic Sorex, ab illis ſolummodo qui præcipuam ſcientiæ naturali navant operam, obſervari ſolitus. In Europa fere omni naſcitur, et ut docet dominus Pallas, in Sibiria frequenter reperitur. In Gallia annum circiter milleſimum ſeptingenteſimum quinquageſimum ſextum a domino Daubenton detectus et deſcriptus eſt. In Anglia longe antea cogni-

tus,

tus, inter animalia tamen deperdita habebatur, donec annum circiter milleſimum ſeptingenteſimum ſexageſimum octavum, juxta cœnobium de Reeveſby in comitatu Lincolnienſi iterum deprenſus ſit. Vix dubitandum eſt quin in aliis multis Angliæ partibus poſſit inveniri. Cur tamdiu incognitus manſerit in cauſa eſſe videtur obſcuritas latibulorum, (amat enim ripas fluviorum, locaque aquoſa,) nec non communis hujusmodi rerum incuria. In certis Buckingamiæ locis nequaquam rarus eſt, et Oxoniæ vicinio: ſedem vero ſibi potiſſimum delegit in aggeribus fluminis Collegii Beatæ Mariæ Magdalenæ ambulacra circumeuntis; ubi non raro mortuus jacet, quod et Sorici Araneo Linnæi, ſeu vulgari ſæpius accidit, a qua ſpecie facillime primo intuitu, colore nempe longe diverſo, dignoſci poteſt.



J

London, Published Jan.y 1st 1791 by T. P. Nodder & C.o No.s Bearer Street.

THE WATER-SHREW.

Generic Character.

Two *cutting Teeth* in each jaw.
Long ſlender *Noſe*: ſmall *Ears*.
Five *Toes* on each foot.

Pennant.

Specific Character, &c.

SOREX black above, whitiſh beneath.

MUSARAIGNE D'EAU.

Daubenton Mem. de l'Acad. de Paris, 1756, p. 211. t. 5. f. 2.

WATER-SHREW.

Pennant Hiſt. Quadr. p. 480.

This animal may be numbered amongſt the rarer quadrupeds of Britain, and is but very ſeldom noticed except by thoſe who pay a more than ordinary degree of attention to the natural productions of our kingdom. It appears to be a native of almoſt every part of Europe, and from the obſervations of Dr. Pallas it ſhould ſeem to be very well known in Siberia. In France it was diſcovered and deſcribed by Mr. Daubenton in the year 1756. In England it had long before been noticed;

ticed; but was conſidered amongſt the loſt quadrupeds of our iſland till about the year 1768, when it was again obſerved in the neighbourhood of Reeveſby-Abbey in Lincolnſhire. It may probably be diſcovered in many other parts of the kingdom, and its continuing ſo long undiſtinguiſhed muſt partly be aſcribed to the obſcurity of its retreats, under the banks of rivers, and in watery places, and partly to a mere want of attention to objects of this nature. In ſome parts of Buckinghamſhire it is not very uncommon, it is alſo found in the neighbourhood of Oxford; and it ſeldom fails to reſide in the banks of the river ſurrounding the water-walks of Magdalen College; and is not unfrequently found dead by the edges of the walks, in the ſame manner as the common Shrew, or Sorex Araneus of Linnæus, from which it may always be moſt readily diſtinguiſhed by its very different color.

LOXIA JUGULARIS.

Character Genericus.

Roſtrum conico-gibbum, frontis baſi rotundatum verſus caput: Mandibula inferior margine laterali inflexa.
Nares in baſi roſtri.
Lingua integra.

Lin. Syſt. Nat. p. 299.

Character Specificus.

LOXIA teſtaceo-ferruginea, nigro undulata, faſcia gulæ ſanguinea.

Africam incolit hæc avicula. Coloris eſt Caſtanei; ſeu griſeo-ferruginei, maculis lunatis nigris eleganter undulati: Decoratur gula faſcia lata tranſverſa vivide coccinea.

THE

RED-THROATED GROSSBEAK.

GENERIC CHARACTER.

Bill ſtrong, thick, and convex.
Noſtrils ſmall.
Tongue truncated.

SPECIFIC CHARACTER, &c.

PALE-FERRUGINOUS LOXIA, undulated with black, with a blood-red faſcia on the throat.

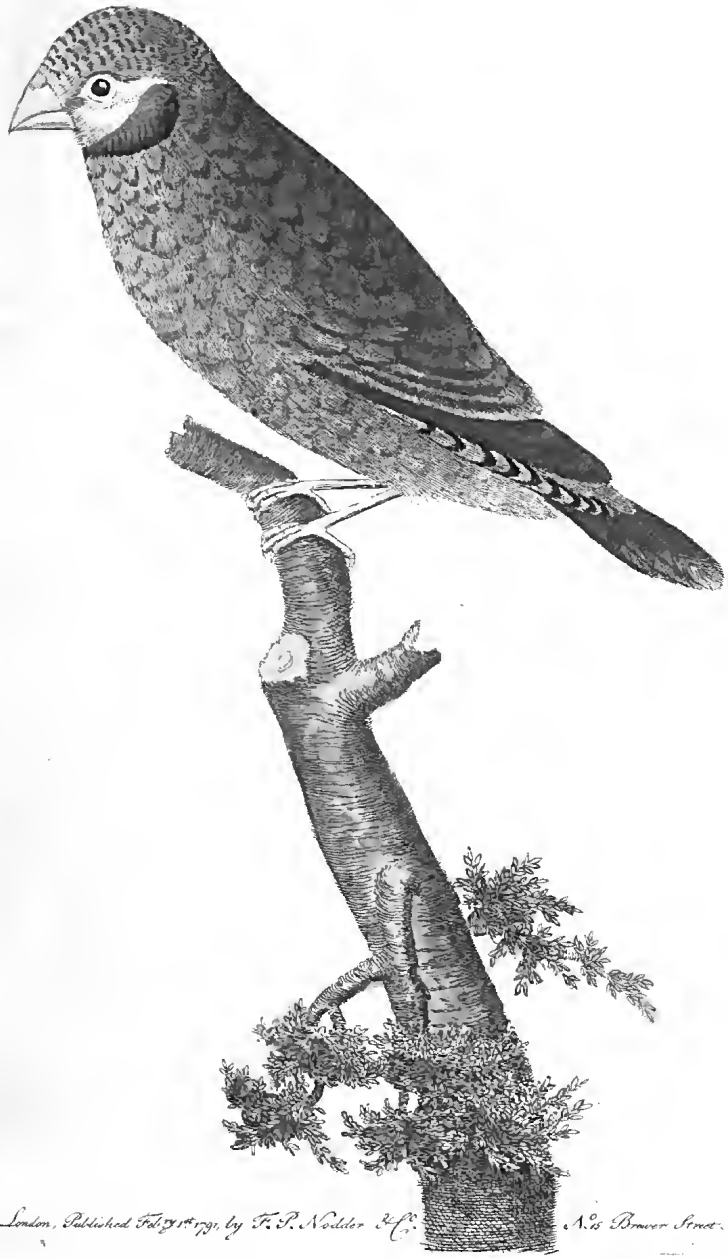
FASCIATED GROSSBEAK.

Lath. Synopſ. 2. p. 156

THE CUT-THROAT SPARROW.

Lev. Muſ.

This bird is a native of Africa. Its colour is a paliſh cheſnut, or grey ferruginous, elegantly undulated with ſemi-lunar marks of black. The throat is ornamented with a broad tranſverſe band of the deepeſt vivid red.



London, Published Feb.y 1st 1791, by F. P. Nodder &c.

CHÆTODON ARMATUS.

Character Genericus.

Dentes ſetacei, flexiles, confertiſſimi, numeroſiſſimi.

Membrana branchioſtega radiis ſex.

Corpus plerumque faſciatum. *Pinna* dorſi anique carnoſa ſquamoſa.

Character Specificus.

CHÆTODON ALBESCENS, corpore faſciis ſeptem nigris, ſpinis pinnæ dorſalis ſex, tertia longiſſima.

Novam et perelegantem generis Chætodontis ſpeciem dat tabula inſpiciendam. Vix quatuor uncias ſuperabat ſpeciminis longitudo unde hæc noſtra figura delineata eſt. Color huic Chætodonti eſt argenteo-albus, dorſo ſub-cæruleo. Faſciæ corporis tranſverſæ nigerrimæ ſunt : pinnæ caudaque pallide fuſca : ſpina ſeu radius tertius pinnæ dorſalis anterioris cæteris multo longior. Maris Auſtralis incola eſt hic piſcis ; prope novam Hollandiam captus eſt, indeque nuperis navigiis ad nos allatus.

THE
LONG-SPINED CHÆTODON.

Generic Character.

Teeth ſetaceous, flexile, cloſely ſet, extremely numerous.

Branchioſtegous membrane with ſix rays.

Body generally faſciated. Dorſal and anal *Fins* ſomewhat fleſhy and coated with ſcales.

Specific Character.

WHITISH CHÆTODON, with ſeven black bands on the body, ſix ſpines on the dorſal fin, the third very long.

This fiſh is a new and very elegant ſpecies of the genus Chætodon. The total length of the ſpecimen from which the figure was taken was ſcarcely more than four inches: the color is a ſilvery white; darker, and of a blueiſh tinge on the back: the tranſverſe faſciæ or bands are of a deep black: the fins and tail are of a pale brown: the third ray or ſpine of the firſt dorſal fin is much longer than the reſt. It is a native of the Southern Ocean, and was brought from New-Holland in one of the laſt voyages.

BRADYPUS URSINUS.

Character Genericus.

Dentes Primores nulli utrinque.
Laniarii obtusi, solitarii, molaribus longiores.
Molares utrinque 5 vel 6.

Character Specificus.

BRADYPUS niger hirsutissimus, naso elongato nudo.

Inter plurima quæ physicis nuperrime innotuerunt, principem sibi locum non immerito vindicat animal in tabula depictum; quod fortasse nonnullis videatur novum omnino per se genus constituere. Opinione tamen firmatus celeberrimi Pennanti, cujus comes, in illius characteres primum sedulo inquisivi, ad genus Bradypi referendum censeo.

Habitu corporis externo ad ursum vulgarem tam prope accedit Bradypus Ursinus, ut pro Ursi specie a quibusdam habitus sit. Vetant tamen omnino dentes, ungueſque peculiariter formati, cum cæteris characteribus, ut Ursi speciem esse pronuncicm.

Magnitudine est ursi vulgaris, exceptoque vultu, seu rostro, villo nigro, longo, et hirsuto totus obtegitur; qui tamen super collum et tergum multo longior est quam in cætero corpore. In partibus corporis anterioribus antrorsum spectat hirsutia; in posterioribus retrorsum.

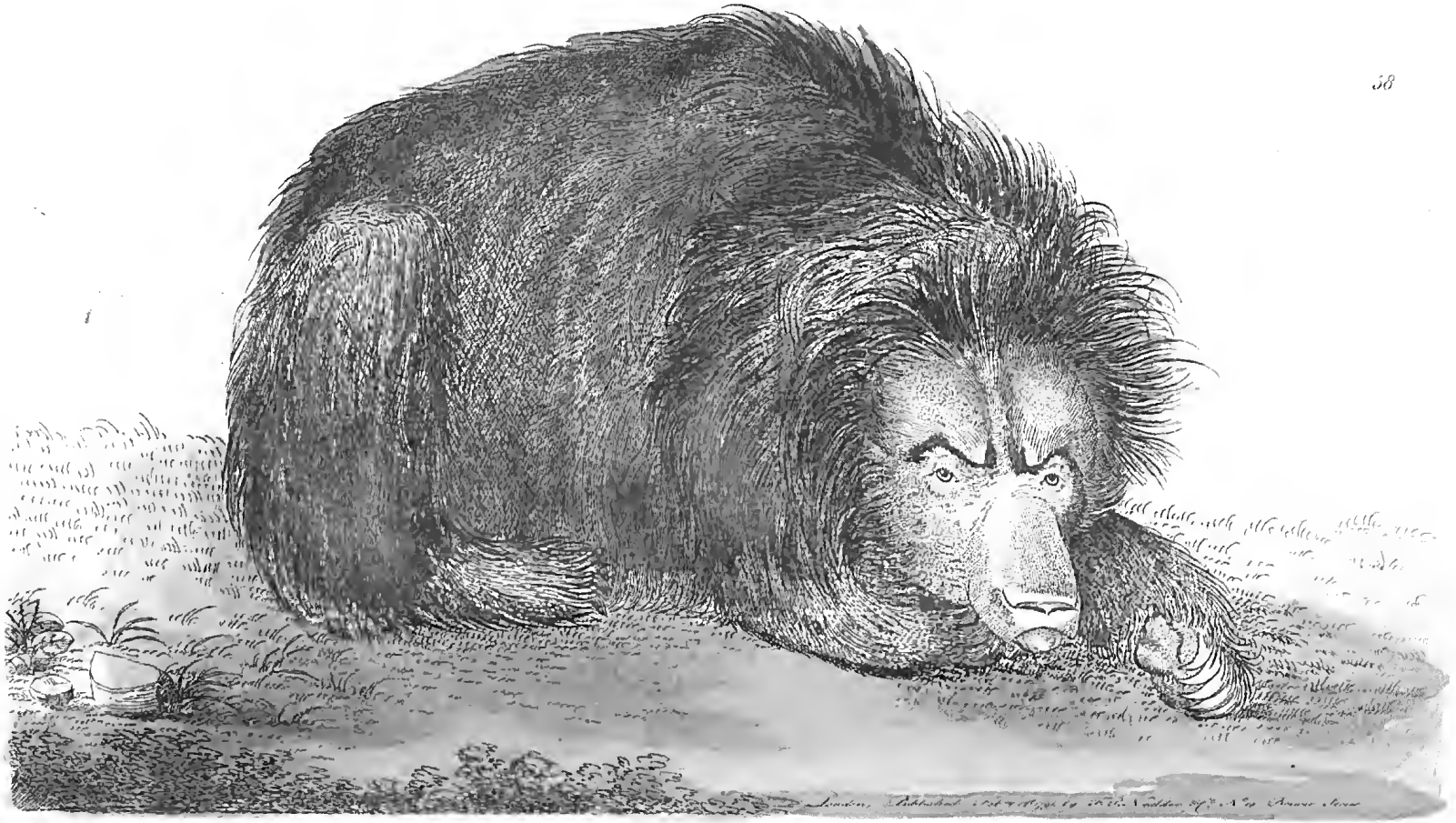
trorſum. Oculi minimi : aures parvæ, et denſo capitis vellere fere abſconditæ. Dentes inciſores nulli ſunt. Utrique maxillæ inſunt duo dentes laniarii modici : qui in maxilla ſuperiore ſiti ſunt uncias circiter duas a ſe invicem diſtant ; qui in inferiore, paulo minus. In maxilla ſuperiore inſunt dentes molares tres utrinque, quorum duo maxime remoti ſeu interiores ſunt quaſi duplices et lobati ; alter ſimplex eſt. In inferiore ſunt utrinque ſex molares, quorum remotiſſimus ſeu interior ſimplex eſt ; duo huic proximi duplices, cæterique tres ſimplices. Linguæ lævi nihil peculiare eſt. Roſtrum elongatum eſt, et tenſile, videturque cartilagine tranſverſa et mobili interius eſſe inſtructum. Ungues pedum anticorum, qui quinque, ſunt validiſſimi, modice incurvati et acuminati : pedum poſteriorum ungues breviores ſunt et potius rotundati : Cauda breviſſima vix diſtingui poteſt.

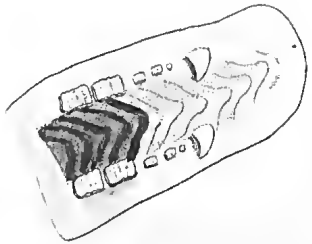
Ab interiore Bengala allatus eſt Bradypus Urſinus, et quartum jam annum exceſſit. Primo detectus Urſum Lotorem Linnæi, qui *Raccoon* vulgo dicitur, magnitudine vix ſuperavit ; illumque latratum quaſi caninum emiſiſſe aſſerunt cuſtodes. Vox illi nunc nulla eſt præter rugitum brevem et abruptum, qui non niſi laceſſito et irritato prodit. Mitis eſt et tranquilli ingenii. Vegetabilibus et lacticiniis veſcitur : gaudet pomis, carnesque faſtidit, niſi forte tenerrimas. Medullam tamen ex oſſe lubentiſſime exugit. Melle, ſaccharo, et omnigenis cupediis delectatur. Motus huic non ut in aliis ejuſdem generis, tardiſſimus, ſed modicus. Solet itetum atque iterum, more canis cubitum ituri, circumgyrare.

gyrare. Terram ſcalpere, et ſub humo velle ſe occultare dicitur, unde a repertoribus primo effoſſus eſt.

Ab ingenioſo Domino Catton figuram hanc noſtram mùtuati ſumus, qui quicquid animali proprium et ſingulare eſt optime expreſſit.

In altera tabula ringens exhibetur caput, ut ſitus dentium oſtendatur, nec non ut roſtrum ſuperius, ope cartilaginis internæ egregie flexibile, quodammodo demonſtretur.





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1

THE URSINE BRADYPUS, OR URSIFORM SLOTH.

Generic Character.

Cutting-Teeth none in either jaw.
Canine-Teeth ſolitary, longer than the grinders.
Grinders in each jaw 5 or 6.

Specific Character.

BLACK BRADYPUS with very long ſhaggy hair, and naked lengthened ſnout.

Amongſt the new ſpecies of animals with which Zoology has been lately enriched, the creature here figured claims a diſtinguiſhed place; and it may be doubted whether it might not with great propriety conſtitute a new genus. In compliance however with the opinion of Mr. Pennant, in whoſe company I firſt made an accurate examination of its characters, I have here placed it as a ſpecies of the genus Bradypus, or Sloth.

In its habit, or general appearance, it has a ſtriking reſemblance to the common bear, and it has even been conſidered as a ſpecies of bear by ſome naturaliſts.

Its teeth, however, and the peculiar formation of its claws, with ſeveral other particulars, abſolutely forbid it to be any longer conſidered as a ſpecies of Urſus.

The animal is about the ſize of a bear, and is covered all over, except on the face, or rather the ſnout, with long, ſhaggy, black hair, which on the neck and back is much longer than in other parts. On the fore part of the body the hair points forwards, and on the hinder part backwards. The eyes are very ſmall; the ears rather ſmall, and partly hid in the long hair of the head. It is totally deſtitute of inciſores or front-teeth: in each jaw are two canine teeth of a moderate ſize: thoſe in the upper jaw are ſituated at the diſtance of two inches from each other: thoſe in the lower jaw are placed ſomewhat leſs remote. The molares or grinders in the upper jaw are three on each ſide; of which the two moſt remote are double, or lobed: the remaining one ſimple. In the lower jaw there are on each ſide ſix grinders, of which the moſt remote or backward is ſimple; the two next double, and the three remaining ones ſimple. The tongue is ſmooth, and has nothing remarkable in its appearance. The noſe, or ſnout is of a ſomewhat elongated form; it alſo appears as if furniſhed with a ſort of tranſverſe joint, or internal cartilage, which admits of a peculiar kind of motion in this part. The claws on the fore-feet are five in number, and are exceſſively ſtrong, moderately crooked, and ſharp pointed: thoſe on the hind-feet are ſhorter, and of a rounder ſhape. The tail is very ſhort, and inconſpicuous.

This

This animal was brought from the interior parts of Bengal, and is now ſomewhat more than four years old. When firſt taken, it is ſaid to have been about the ſize of a raccoon, and is reported to have ſometimes barked in the manner of a dog. Its voice however at preſent is rather a ſort of ſhort, abrupt roar, which it emits when much diſturbed or irritated. It is gentle and good-natured: feeds chiefly on vegetable ſubſtances and milk; and is fond of apples, and does not willingly eat animal food, except of a very tender nature, as marrow, which it readily ſucks from a bone preſented to it. It is alſo delighted with honey, ſugar, and other ſweets. Its motions are not as in others of this genus, ſlow and languid, but moderately lively, and it appears to have an habit of turning itſelf round and round every now and then, as if for amuſement, in the manner of a dog when lying down to ſleep. It is ſaid to have a propenſity to burrowing under ground; and that it was at firſt dug out of its retreat by thoſe who diſcovered it.

The figure here given is copied from a drawing by Mr. Catton, an artiſt who has been peculiarly happy in expreſſing the appearance of the animal.

In the additional plate is repreſented a view of the head in a ringent ſtate; in order to ſhew not only the form and diſpoſition of the teeth, but alſo in ſome meaſure the ſingular flexibility of the upper part of the ſnout, as if furniſhed with a joint or internal cartilage.

PETAURUS AUSTRALIS.

Character Genericus.

Dentes varii in variis.
Corpus cute volatili cinctum.

Character Specificus.

PETAURUS ſupra nigricans, ſubtus albicans, pollicibus plantarum rotundatis.

Arbitrentur fortaſſe Phyſici debere Petaurum Auſtralem genus potius per ſe conſtituere, quam inter novas ſpecies numerari. Cum vero generum inſtitutio ob hanc vel illam peculiarem notam, pedum nempe ſeu dentium formam, ſcientiam naturalem ſæpe perturbet et obſcuret, moleſtiamque potius quam auxilium tyroni afferat; ſatius duxi Petaurum Auſtralem velut ſpeciem Sciuri volantis deſcribere. Sciuroſque ipſos volantes ab aliis disjungere, et in genere diſtincto nomine Petauri reponere. Quamvis enim a Linnæo in eodem genere cum Sciuris aliis numerentur, fatendum tamen eſt, membranam, ſeu cutim extenſam, cujus ope volitant, adeo eſſe ſingularem et propriam, ut non immerito ad genus ſeparatum poſſint pertinere.

Hoc tamen fortaſſe nonnullis videatur curioſe potius quam utiliter factum.

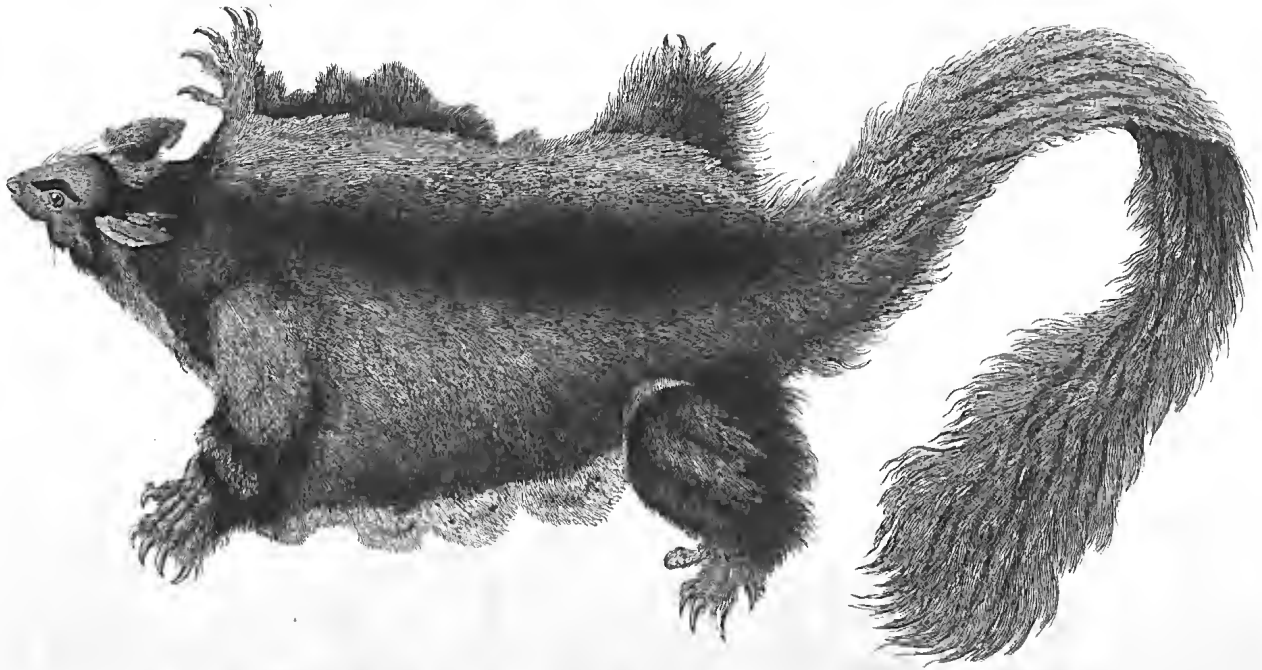
Totius igitur generis Petauri, ſpecies hic depicta non tantum maxima eſt, ſed et elegantiſſima. Species

NATIONAL MUSEUM OF VICTORIA

præterea eſt nova, de Nova Hollandia non ita pridem petita. Magnitudine cuniculo juniori vix cedit.

Color corporis ſuperni eſt fuſco-cinereo-nigricans, inferioris fere albidus. Pilus eſt præter modum mollis et elegans; cujus ſi copia ſufficeret, neſcio annon aliorum animalium vellera, utcunque pretioſa, ſordeſcerent. Pedum poſticorum forma ſingularis eſt: Pollex ſeu digitus primus rotundatus eſt, ungue complanato et rotundato; cum aliis omnibus digitis ungues acuminati ſint. Digiti quoque duo intermedii, ſeu pollici proximi, cute communi ad ipſos ungues conjunguntur. Cauda longa pilo molliſſimo et delicatulo denſiſſime veſtitur.

In narratione itineris auſtralis a Domino White, hoc animal nomine *Hepoona Roo* diſtinguitur, et pulcherrime a Domino Catton depingitur: figuram igitur ibi datam, utpote eximiam, in hoc noſtro opere imitamur.



London, Published March 1st 1799 by F.P. Nodder Esq.re N.o 16 Bowver Street.

THE SOUTHERN PETAURUS.

GENERIC CHARACTER.

Teeth differing in the different ſpecies.
Body ſurrounded by a flying-ſkin.

SPECIFIC CHARACTER, &c.

PETAURUS blackiſh above, whitiſh below, with the thumbs of the hind-feet rounded.
HEPOONA ROO.

White's Voyage to Botany Bay.

It may perhaps be doubted whether this animal might not conſtitute a genus per ſe, rather than be regarded as a ſpecies merely: but as the inſtitution of genera from two or three particular circumſtances only; *e. g.* a peculiarity in the teeth, claws, &c. frequently throws much confuſion on natural hiſtory, and rather tends to embarraſs than inſtruct a ſtudent in the ſcience, I have thought it beſt to deſcribe this animal as a ſpecies of flying-ſquirrel, and to ſeparate the flying-ſquirrels from the genus Sciurus, with which LINNÆUS had conjoined them, and to form them into a genus by the name of Petaurus.

This perhaps may be thought an unneceſſary piece of exactneſs; yet there is ſomething ſo peculiar in the expanded proceſſes of ſkin by which the flying-ſquir-

rels are diſtinguiſhed, that they may properly enough be allowed to form a diſtinct genus.

Of all the ſpecies then of this genus the animal here figured is the largeſt and the moſt elegant: it is alſo a new ſpecies; having been brought from New Holland during the late voyages.

Its color is a very fine ſable or deep grey-brown above, while the lower ſurface is nearly white. The fur is of the moſt exquiſite ſoftneſs and elegance, and if the animal could be procured in ſufficient plenty, would bid fair to ſuperſede the richeſt furs hitherto in uſe. The ſtructure of the hind foot in this ſpecies is remarkable; the thumb or firſt toe being of a rounded form and furniſhed with a flattened nail, while the remaining toes have ſharp claws; and the two ſecond toes, or thoſe next the thumb, are united in one common covering or ſkin to the very claws: the tail is long, and is very thickly cloathed with fur of the ſofteſt and moſt delicate appearance.

In Mr. White's Journal of a voyage to New South Wales, this animal is diſtinguiſhed by the title of *Hepoona Roo*, and is beautifully figured by Mr. Catton; which figure, on account of its excellency, we have not ſcrupled to copy in the preſent work.

SIREN LACERTINA.

Character Genericus.

Corpus bipedum, caudatum, nudum.
Pedes brachiati, unguiculati.

Lin. Syſt. Nat. vol. 1. pt. 2. *Addend.*

Character Specificus, &c.

SIREN corpore anguilliformi, branchiis ramoſis.
SIREN LACERTINA.

Amœn. Acad. vol. 7. p. 311.

Sirenem a reliquis animalibus adeo eminenter diſtinxit Natura, forma ambigua, et dubiis characteribus, ut celeberrimus Linnæus novum illi Amphibiorum ordinem nomine *Meantes* inſtituerit; qui tamen novus ordo non inter alia Amphibia in Syſtemate Naturæ invenitur, ſed in nota ad finem partis ſecundæ tomi primi iſtius operis exſtat.

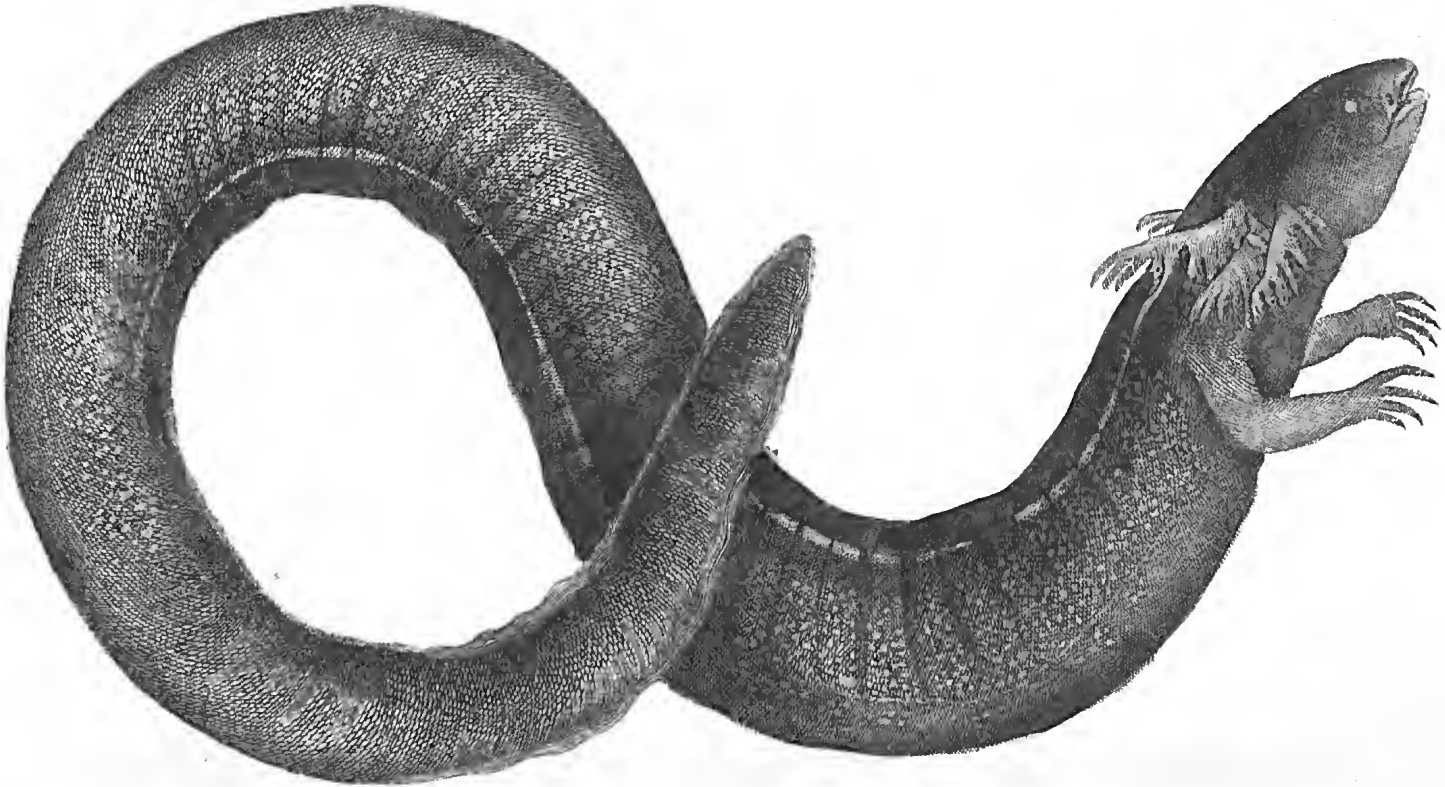
Genus cui Siren affinitate ſumma conjungi videtur, eſt genus *Lacerta:* lacertæ enim larvam valde repræſentat, et dubitant nonnulli an talis revera ſit nec ne: characteres tamen omnes videntur eſſe animalis perfecti et adulti, nec hactenus viſa eſt Siren in alia aliqua forma ſtatuque. Pedes tantum duos habet, ſine ullis pedum poſteriorum veſtigiis; illoſque unguibus munitos, cum larvarum omnium lacertarum, hactenus cognitarum, pedes ſunt, (lingua Linnæana) mutici, ſive unguibus

unguibus deſtituti. Os dentium parvulorum ſeriebus pluribus munitur.

Singulare hoc animal Americam Septentrionalem inhabitat, et in Carolina Auſtrali præcipue invenitur, in locis uliginoſis et aquoſis minime infrequentibus, ſub aqua plerumque degens, interdum vero in terram progrediens. Vocem habet ſtridulam, ſive cantillantem, quam ob cauſam a LINNÆO nomine Sirenis diſtinguitur.

A Domino GARDEN, medico in Carolina per multos annos celeberrimo, primo detectum fuit deſcriptumque; qui etiam ſpecimina nonnulla ad LINNÆUM miſit. LINNÆUS in epiſtola ſua ad Dominum GARDEN, de Sirene, affirmat nullum aliud unquam animal ſe adeo torſiſſe, nec aliud ſe plus velle, quam veram iſtius naturam optime callere. Non ſilendum eſt Sirenem in terram modica vi jactatam, in partes tres vel quatuor diſſilire, quod aliquibus etiam ſerpentibus evenit.

In Actorum Anglicorum volumine quinquageſimo ſexto deſcribitur Siren a Domino ELLIS, qui etiam figuram addidit, quæ adeo ad normam animal exprimit, ut potius viſum ſit eam ipſam imitari, quam novam, diverſo ſitu, effingere. Summam Sirenis larvæ lacertæ ſimilitudinem demonſtrat triplex branchiarum ramoſarum utrinque in collo par, ut ſit in larva lacertæ vulgaris aquaticæ. Species lacertæ cui Siren maxime videtur affinis, eſt lacerta a LINNÆO *Teguixin* nominata. Ad longitudinem fere duorum pedum creſcit Siren.



London, Published March 1st 1791 by F.P. Nodder & Co. N.os Bunce Court.

THE
SIREN.

GENERIC CHARACTER.

Body two-footed, tailed, naked.

Feet brachiate (*i. e.* placed in the manner of arms), and furniſhed with claws.

SPECIFIC CHARACTER.

SIREN with an eel-ſhaped body, and ramified branchiæ, or reſpiratory organs.

The Siren ſtands eminently diſtinguiſhed in the liſt of animals by the ambiguity of its characters, which are ſuch as to have induced the great LINNÆUS to inſtitute for it a new order of Amphibia, under the title of *Meantes*; an order however which does not ſtand amongſt the Amphibia in the Syſtema Naturæ, but is mentioned in a note at the end of the ſecond part of Vol. I. of that work.

The genus with which the Siren has evidently the greateſt poſſible affinity, is that of Lacerta or Lizard. It even very much reſembles the larva, or firſt ſtate of a lacerta; and it is ſtill doubtful whether it may not really be ſuch; but it has never been obſerved in any other ſtate, and it has always two feet only, without any appearance of a hind-pair. It likewiſe has all the characters of an animal in its complete ſtate; the feet in particular, are armed with claws, whereas the larvæ of all the lacertæ are without claws, or in the LINNÆAN phraſe, digitis muticis. The mouth has ſeveral rows of ſmalliſh teeth.

This

This moſt ſingular animal is a native of North America, and the part where it has principally been found is the province of South Carolina, where it is not uncommon in muddy and ſwampy places, living generally under water, but ſometimes appearing on land. It has a ſort of ſqueaking or ſinging voice, for which reaſon LINNÆUS has applied to it the name of Siren.

It was firſt diſcovered by the ingenious Dr. GARDEN, who reſided long in South Carolina, and who ſent an account of the animal, accompanied with ſpecimens, to LINNÆUS. LINNÆUS in his letter to Dr. GARDEN on this ſubject, declares that nothing had ever exerciſed his thoughts ſo much, nor was there any thing he ſo much deſired to know as the real nature of this extraordinary creature. It is remarkable that the Siren, when thrown on the ground with a degree of violence, breaks in three or four pieces; in which particular it reſembles ſome of the ſerpent tribe.

In the fifty-ſixth Volume of the Philoſophical Tranſactions is an account of the Siren by the late Mr. ELLIS, illuſtrated by a figure which ſo very accurately expreſſes the animal, that we have not ſcrupled to copy that figure, rather than to give a new one in a different poſture. What cauſes this animal to approach very nearly to the appearance of the larva of a lacerta, is, that it is furniſhed on each ſide the neck, with three pair of ramified branchiæ, in the ſame manner as the larva of the common water-newt. The ſpecies of lacerta to which it ſeems moſt allied is the Lacerta Teguixin of LINNÆUS. It grows to the length of nearly two feet.

GRYLLUS MIGRATORIUS.

CHARACTER GENERICUS.

Caput inflexum, maxillosum, palpis instructum.
Antennæ setaceæ, seu filiformes.
Alæ quatuor, deflexæ, convolutæ: inferiores plicatæ.
Pedes postici saltatorii. *Ungues* ubique bini.
Lin. Syst. Nat. p. 693.

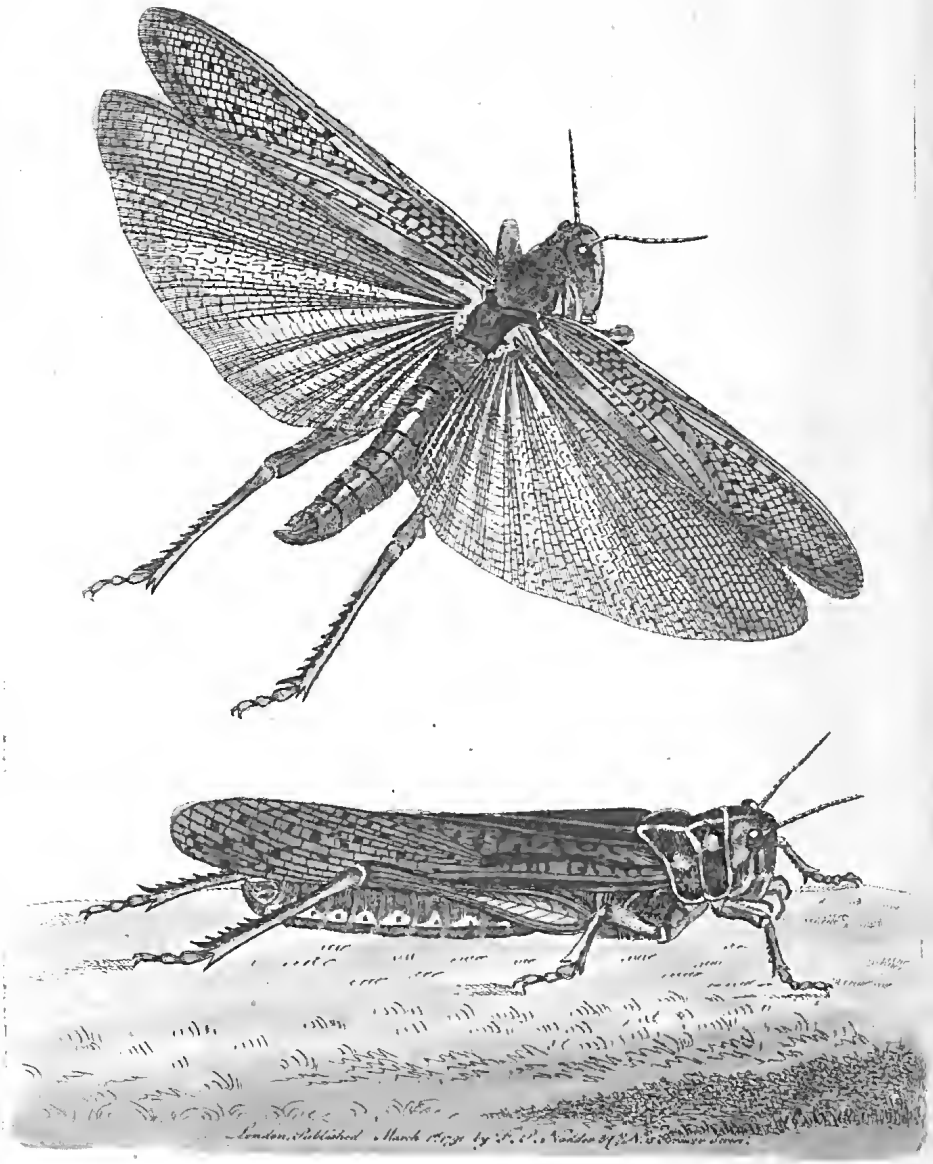
CHARACTER SPECIFICUS, &c.

GRYLLUS thorace subcarinato: segmento unico, capite obtuso, maxillis atris.
Lin. Syst. Nat. p. 700.
GRYLLUS thorace subcarinato: segmento unico, mandibulis cæruleis.
Fabr. Spec. Inf. tom. 1. p. 365.

Præter omnia insecta quæ fruges devorando hominum miserias augere solent, Grylli, sive Locustæ ut communiter dicuntur, maxime metuendam stragem nobis inferunt. In calidioribus terræ partibus, Africæ præcipue et Orientis regionibus, edaciſſimorum horum animalium innumeræ exurgunt catervæ, quæ supra fidem omnia devastant; tractus per quos volitant, fere desolant, et spatio brevi amœniſſimas et fertiliſſimas provincias in deserta convertunt; dum denſiſſimo eorum

rum agmine ipſe dies adimitur. Dubitari pene poſſit, ſintne locuſtæ nocentiores vivæ an mortuæ; e mortuarum enim millibus tanta exoritur putredo, ut incipientis peſtis una e cauſis valentiſſimis cenſeatur. Locuſtarum plurimæ ſunt ſpecies, quarum quæ maxime fortaſſe vorax et exitioſa eſt ea in tabula depicta, quæ Gryllus Migratorius Linnæi. Plerumque coloris eſt ſubfuſci, ſed maculis obſcurioribus variati; et in quibuſdam corporis partibus coloris eſt rubentis, ſeu potius carnei; crura autem plerumque ſunt ſubcærulea. Anno milleſimo ſeptingenteſimo quadrageſimo octavo, in varias Europæ partes irrupit hæc ſpecies, ſed in catervis ſparſis et diffractis. In Germaniam, Galliam, et Angliam involabant, et in urbe ipſa Londini ejuſque vicinio plurimæ reperiebantur hujuſmodi locuſtæ: brevi tamen ſpatio periere, vix ulla agris illata injuria. Maxima omnium ſpecierum hactenus cognitarum eſt Gryllus criſtatus Linnæi, qui inſectum jam deſcriptum mole quincuplici vel etiam ſextupla ſuperat; quique cum aliis majoribus hujus generis, in nonnullis Orientis regionibus pro cibo uſurpari ſolitus eſt. Non tantum recentes, ſed et ſale conditæ comeduntur hæ locuſtæ, et in foro publico venales proſtant in oppidis Levantinis. Subſtantia tamen earum pergracilis eſt, præcipue inſectorum marium; nam fœminæ ob ovarium paulo pleniorem eſcam ſuppeditant. Notiſſimum eſt multum diſputaſſe theologos de loco in ſcriptis evangelicis, ubi dicitur Joannem Baptistam locuſtis et melle ſylveſtri vitam ſuſtinuiſſe, quorum nonnulli per verbum ακρίδας, teneras tantum plantarum ſummitates intelligi voluerunt. Cum tamen probe compertum

pertum ſit, Arabas hiſce animalibus vel nunc pro cibo uti, vix egere videtur illa vox ulla alia interpretatione præter communem et vulgarem. Cur enim miremur ſanctum illum et abſtemium prophetam, cum ab inanibus mundi gaudiis ſe procul ſubduceret, cibo uſum fuiſſe non ſane inter dapes lautiores numerando, ſed illo tantum qui in locum potioris eſcæ ſuffectus ſit? Ut hanc conjecturam firmemus, teſtimonium Domini Hasselquist liceat nobis proferre, qui de hac ipſa re ita loquitur. " Qui inſectis virum hunc ſanctum veſci ſolitum fuiſſe negant, aiunt cibum e locuſtis paratum ignotum prorſus eſſe et inuſitatum. Si vero hi in Ægyptum, Arabiam, aut Syriam migrarent, longe aliter de hac re ſentirent: certis enim temporibus locuſtas aſſatas communiter comedunt Arabes, nec dubitandum eſt illis tempore quo vixit Joannes Baptista, pro cibo fuiſſe. Præterea his locis mores antiqui non facile dilabuntur, nec Baptistæ cibus mirus aut inſolitus jam reputatur. Preſbyter etiam Græcus, nequaquam indoctus, mihi pro vero aſſirmavit eccleſiam ſuam per verbum ακρίδας locuſtas ſemper intellexiſſe; riſitque ipſe cum a me audiret noſtros interpretes plantam aut avem illo verbo ſignificari conjeciſſe. "



THE MIGRATORY, OR, WANDERING LOCUST.

Generic Character.

Head inflected, armed with jaws, and furniſhed with palpi or feelers.

Antennæ either ſetaceous, or filiform.

Wings four, deflected, convolute; the inferior ones plaited.

Hind-Feet formed for leaping. *Claws* on all the feet double.

Specific Character.

GRYLLUS with ſubcarinated thorax with a ſingle ſegment, obtuſe head, and blackiſh or blueiſh jaws.

Of all the inſects which are capable of adding to the calamities of mankind by devouring the products of the earth, locuſts ſeem to poſſeſs the moſt formidable powres of deſtruction. Legions of theſe voracious creatures are from time to time produced in various parts of Africa and the Eaſtern World, where the havock they commit is almoſt incredible. They carry deſolation with

with them wherever they paſs, and in the ſhort ſpace of a few hours change the moſt fertile provinces into the appearance of a barren deſart; while the air is darkened by their numbers. Nay even when dead they are ſtill terrible, ſince the putrefaction which ariſes from their inconceivable number, is ſuch that it has been regarded as one of the principal cauſes of a beginning peſtilence. There are a great many different ſpecies of locuſts. One of the moſt deſtructive is the Gryllus Migratorius of Linnæus, or the Wandering Locuſt, here repreſented. It is generally of a browniſh color, varied with ſpots of a deeper caſt, and in ſome parts with pale red or fleſh-color, and the legs are commonly blueiſh. In the year 1748 this ſpecies appeared in irregular flights in ſeveral parts of Europe; as in Germany, France, and England, and in London in particular, and its neighbourhood, great numbers were ſeen: they periſhed however in a ſhort time, and were not productive of any miſchief. The largeſt ſpecies of locuſt yet known is the Gryllus Criſtatus of Linnæus, which is five or ſix times as large as the ſpecies juſt deſcribed; and which, together with ſome other of the larger kind, is made uſe of in ſome parts of the world as an article of food. They are eaten both freſh and ſalted, in which laſt ſtate they are publickly ſold in the markets in ſome parts of the Levant. The quantity of edible ſubſtance which they afford is but ſmall, eſpecially in the male inſects; but the females, on account of the ovaries, afford a more nutritious ſuſtenance. It is well known that different interpretations have ſometimes been given of the paſſage

in

In the ſacred writings in which JOHN THE BAPTIST is ſaid to have ſed on locuſts and wild honey; and the word ακρίδας has been ſuppoſed to mean the young ſhoots of vegetables, rather than locuſts; but ſince the fact is well eſtabliſhed, that theſe inſects are ſtill eaten by the inhabitants of the Eaſt, there ſeems not the leaſt reaſon for admitting any other interpretation than the uſually received one: Why ſhould we wonder that the abſtemious prophet, during his ſtate of ſolitary ſeclusion from the commerce of the world, ſhould ſupport himſelf by a repaſt which is to be numbered not amongſt the luxuries of life, but merely regarded as a ſubſtitute for food of a more agreeable nature? We may alſo adduce, in ſupport of this idea, the teſtimony of HASSELQUIST, who thus expreſſes himſelf on this very ſubject. "They who deny inſects to have been the food of this holy man, urge, that this inſect is an unaccuſtomary and unnatural food; but they would ſoon be convinced of the contrary, if they would travel hither, to Egypt, Arabia, or Syria, and take a meal with the Arabs. Roaſted locuſts are at this time eaten by the Arabs at the proper ſeaſon, when they can procure them; ſo that in all probability this diſh has been uſed in the time of ST. JOHN. Ancient cuſtoms are not here ſubject to many changes, and the victuals of JOHN are not believed unnatural here; and I was aſſured by a judicious Greek prieſt, that their church had never taken the word in any other ſenſe, than that of locuſts; and he even laughed at the idea of its being a plant or a bird."

HASSELQUIST's *Travels, Eng. Tranſlation*, p. 419.

MUSCICAPA PORPHYROBRONCHA.

Character Genericus.

Roſtrum ſubtrigonum, utrinque emarginatum, apice incurvo; *vibriſſæ* patentes verſus fauces. *Nares* ſubrotundæ.

Lin. Syſt. Nat. p. 324.

Character Specificus.

MUSCICAPA nigra, gula purpurea.

Rara hæc avis Americam Auſtralem, et præcipue Cayanam inhabitat. Nigra eſt, excepta gula, ſeu colli parte anteriore egregie purpurea. Femina penitus nigricat. Magnitudine merulam vulgarem fere æquat.

THE PURPLE-THROATED FLY-CATCHER.

Generic Character.

Bill somewhat trigonal, emarginated on each ſide, with incurved tip; furniſhed with ſpreading vibriſſæ or whiſkers towards the mouth.
Noſtrils roundiſh.

Specific Character, &c.

BLACK FLY-CATCHER, with purple throat.

PURPLE-THROATED FLY-CATCHER.
Lath. Synopſ. 4. p. 365.

PIAUHAU.
Buff. Oiſ. 4. p. 588.

This rare and curious bird is a native of South America, and is principally found in Cayenne. It is entirely black, except on the fore-part of the neck, which is of a rich and deep purple. The female is totally black: its ſize is nearly that of a black-bird.

ACARUS VEGETANS.

Character Genericus.

Pedes octo.
Oculi duo ad latera capitis.
Tentacula duo, articulata, pediformia.
Lin. Syſt. Nat. p. 1022.

Character Specificus.

ACARUS cruſtaceus rufus marginatus convexus, ſubtus planus.
Lin. Syſt. Nat. tom. 3. p. 226.

Quod phyſicis haud omnino ingratum eſſet me facturum arbitratus ſum ſi inſectum illud ſingulare a Linnæo *Acarus Vegetans* nuncupatum, ob exiguitatem antehac pene neglectum accurate deſcribi et depingi curarem. Aliorum inſectorum corporibus plerumque ſe affigit hujuſmodi acarus, illorum præcipue quæ *Coleoptera* Linnæi conſtituunt, quæque communiter Scarabæi dicuntur.

Sæpiſſime illum comperi corpori aut elytris adhærentem Hiſteri Unicoloris Linnæi, parvi nempe inſecti coleoptrati, in hortis, ineunte vere, minime rari. Frequenter etiam eum vidi ſcarabæo ſtercorario Linnæi adjunctum, et altero Scarabæo minori, fuſcæ nempe varietati *ſimetarii* ejuſdem auctoris, menſibus Aprilis et Maii, in fimo bovino ut plurimum obvii.

Mirandus

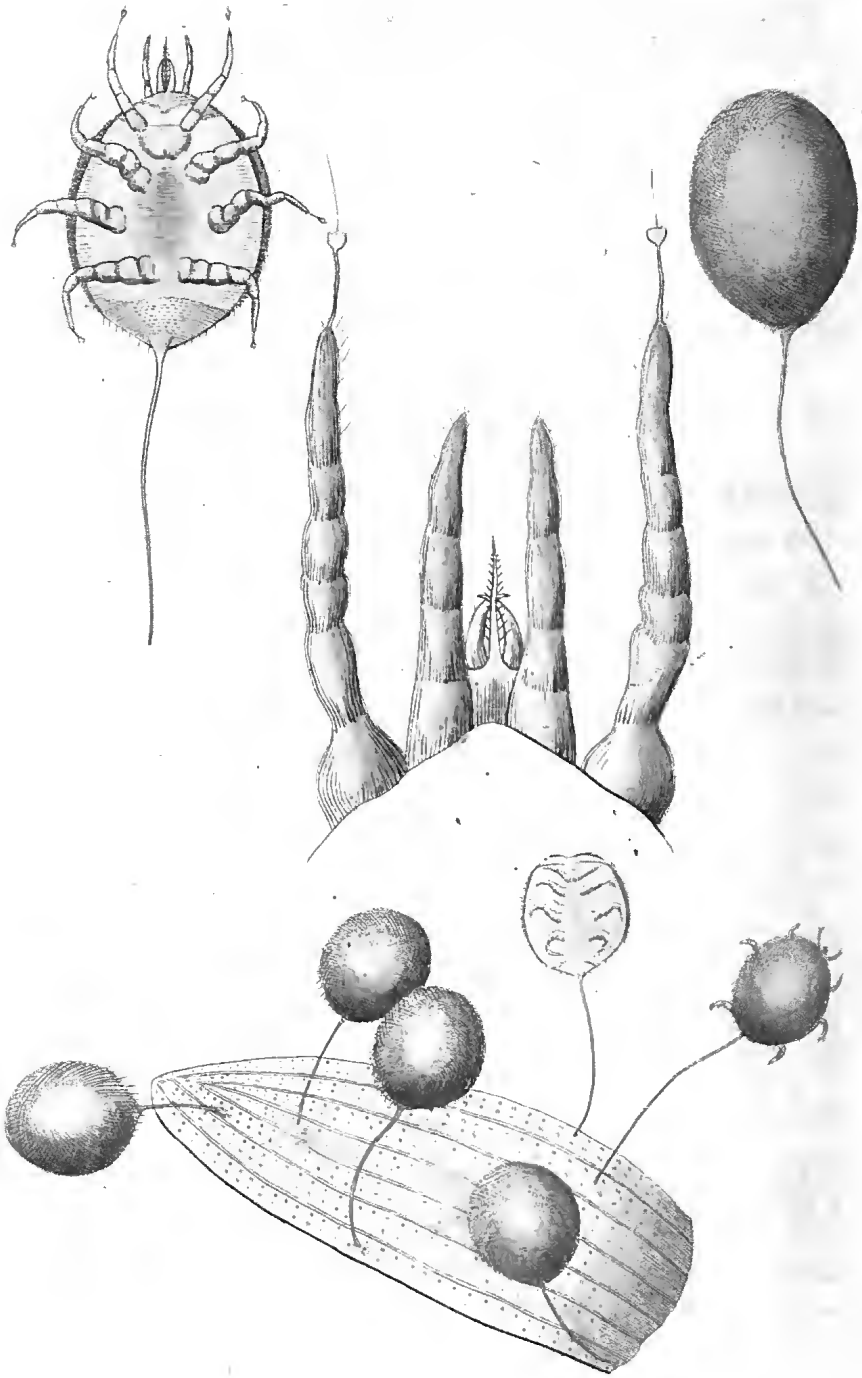
Mirandus omnino eſt modus quo adhærent hi acari corporibus aut elytris aliorum animalculorum, pedicello nempe, ſeu ſtipite flexili; quo fit, niſi ſuccus nutritius ab hoc pedicello abſorbeatur, (quod ut fiat tubulatum putemus,) neceſſe eſſe ſtipitem aliquando ſemicirculatim poſſe eos curvare, ut inſectum cui affiguntur fugendo ſe alant. Interdum illis adeo cooperiuntur Coleoptera, ut elytra ſeu alarum tegumenta non poſſint conjungi, ipſique artus impediti ægre moveantur.

Acari Vegetantis ſuperficies ſuperior eſt glabra et convexa; inferior fere complanata. Clarius tamen patebit ſimilitudo inſectum ipſum depictum inſpicienti, quam ex deſcriptione colligi poſſit. . Figuræ duæ ſuperiores acarum anticum et poſticum repræſentant. Figura autem magna oſtendit plures, ſex nempe, elytro adhærentes illius ſcarabæi quem varietatem eſſe *ſimetarii* ante diximus. Alia maxillas, cæteraſque capitis partes mire conformatas, multo tamen auctius, monſtrat.

Magnum horum me memini numerum Oniſco a Linnæo *Armadillo* nominato, ſeu *millepedæ officinarum*, ut dicitur, annexum ſemel conſpexiſſe. Ut verbo dicam, acarum vegetantem nihil aliud eſſe ſuſpicor præter larvam acari coleoptratorum Linnæi, qui ſuper ſcarabæos fere omni tempore poſſit inveniri, phyſiciſque optime innoteſcit. Notandum præterea acarum vegetantem non in genere acari apud Linnæum reperiri, ſed in appendice animalium ad finem voluminis tertii Syſtematis Naturæ.

Celeberrimus

Celeberrimus De Geer in Actis Stockholmienſibus anni milleſimi ſeptingenteſimi ſexageſimi octavi parvulum hoc animalculum deſcripſit et delineavit, vix tamen ſatis eleganter aut accurate. In Hiſtoria Inſectorum iterum illud deſcripſit idem auctor et depinxit.



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THE VEGETATING MITE.

GENERIC CHARACTER.

Eight *Legs.*
Two *Eyes*, ſituated on the ſides of the head.
Two *Tentacula*, jointed, and ſhaped like feet.

SPECIFIC CHARACTER.

CRUSTACEOUS REDDISH or YELLOWISH-BROWN ACARUS, convex above, flat beneath.

That curious little inſect, the acarus vegetans of LINNÆUS, or the vegetating mite, being, on account of its minuteneſs, leſs attended to than many others of its genus, it cannot be unacceptable to the admirers of Natural Hiſtory to ſee it accurately figured and deſcribed. It is generally to be found on the bodies of other inſects; and particularly on thoſe belonging to the beetle tribe, or ſuch as in the LINNÆAN language, belong to the claſs Coleoptera.

The inſect on which I have moſt commonly obſerved it, is the Hiſter Unicolor LIN: which is a ſmalliſh coleopterous inſect, frequently ſeen in gardens in the early part of the ſpring, and which at that ſeaſon ſeldom fails to have ſome of the vegetating mites either

on

on its body or wing caſes. I have alſo obſerved it in great plenty on the ſcarabæus ſtercorarius LIN: or common black beetle, as well as on a ſmall brown variety of the ſcarabæus fimetarius LIN: which is almoſt always to be found in cow-dung in the months of April and May.

The manner in which theſe minute inſects adhere is very curious; for each is affixed by a flexible ſtalk or pedicle to the wing-ſhells and other parts of the inſect they infeſt; ſo that unleſs their nutriment is abſorbed by the ſtalk which ſupports them, (and which, in this caſe, muſt be tubular,) they muſt have the power of bending the ſtalk in a ſemicircular direction at particular times, ſo as to enable them to adhere occaſionally to the inſect for the purpoſe of feeding. They are ſometimes ſo numerous as to prevent the beetles on which they grow, from cloſing their wing-ſheaths; and adhere to their limbs in ſuch a manner as greatly to impede their motions.

The upper ſurface is ſmooth and convex; the lower ſurface flat; but the figures annexed will convey a clearer idea of the ſeveral particulars of their appearance than any deſcription. The two upper figures repreſent the fore and back view of the inſect. The large groupe repreſents ſix of them adhering to the elytron or wing-ſheath of the brown variety above-mentioned of the ſcarabæus fimetarius. The other figure ſhews the ſingular appearance of the jaws and other parts at the head of the inſect, magnified in a much greater degree.

I once

I onee obſerved theſe inſects in great plenty on the oniſcus armadillo, or common officinal Millepede. Upon the whole, I am ſtrongly inclined to believe the vegetating mite to be nothing more than the larva or young of the acarus coleoptratorum, or common beetle-acarus, which infeſts thoſe inſects at moſt ſeaſons of the year, and which is well known to every obſerver of inſects. I ſhould obſerve that the acarus vegetans does not occur under the genus acarus in the Syſtema Naturæ of Linnæus, but is mentioned in the appendix animalium at the end of the third volume of that work.

De Geer in the Acta Stockholmienſia for the year 1768 has deſcribed and figured this inſect; but his figures cannot be commended either for their elegance or accuracy. He has alſo figured and deſcribed it in his Hiſtory of Inſects.

LACERTA PLATURA.

Character Genericus.

Corpus tetrapodum, caudatum, nudum.
Lin. Syſt. Nat. p. 359.

Character Specificus.

LACERTA cauda depreſſo-plana lanceolata, margine ſubaculeato, corpore griſeo-fuſco ſcabro.

Ungues quaſi duplicati: lingua brevis, lata, integra, ſeu non forficata; apice autem leniter emarginato.

Lacertam Platuram, quam nuperrime detectam generavit Nova Hollandia, inſigniter diſtinguit cauda depreſſa et complanata, margine tenuiſſimo, ſenſim in acutum apicem decreſcens. Rariſſima eſt in genere hæc caudæ planities, nec accidit niſi duabus vel tribus ſpeciebus. Uncias quatuor cum ſemiſſe paulum ſuperat longitudine Platura. Caput magnum pro corpore. Tota ſuperior ſuperficies tuberculis parvis exaſperatur, quæ in aliquibus partibus, verſus occiput præcipue et caudam, in mucrones acuminatos extenduntur. Inferior ſuperficies pallida eſt, ſeu albeſcens.

THE BROAD-TAILED LIZARD.

Generic Character.

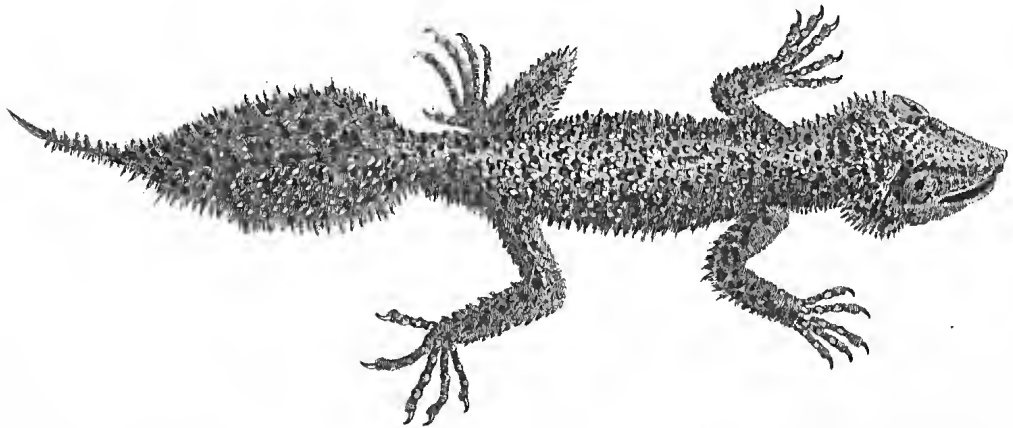
Body four-footed, tailed, naked.

Specific Character.

LIZARD with a depreſſed lanceolate tail, almoſt ſpiny on the margin; the body of a duſky grey color, and rough.

The claws appear as if double; the tongue is ſhort and broad, not forked, but ſlightly emarginated at the tip.

The Lacerta Platura or broad-tailed Lizard, a ſpecies very lately diſcovered, and which is a native of New Holland, is ſtrikingly diſtinguiſhed by the uncommon form of its tail, which is of a depreſſed or flattened ſhape, with very thin edges, and gradually tapers to a ſharp extremity. This depreſſed form of the tail is extremely rare in lizards, there being ſcarcely more than two or three other ſpecies in which a ſimilar ſtructure takes place. This lizard is ſomewhat more than four inches and a half in length; the head is large in proportion; and the whole upper ſurface of the animal is beſet with ſmall tubercles, which in ſome parts, eſpecially towards the back of the head, and about the tail, are lengthened into ſharpened points. The lower ſurface is of a pale color, or nearly white.



London, Published April 1st 1791 by F. P. Nodder & Co. N.os 18 Brewer Street.

TROCHILUS COLUBRIS.

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Character Genericus.

Roſtrum ſubulato-filiforme, apice tubulato, capite longius: Mandibula ſuperior vaginans inferiorem.

Lingua filiformis, filis duobus coalitis tubuloſa.

Pedes ambulatorii.

Lin. Syſt. Nat. p. 189.

Haracter Specificus, &c.

TROCHILUS rectiroſtris viridi-aureus, rectricibus nigris, lateralibus tribus ferrugineis apice albis, gula flammea.

Lin. Syſt. Nat. p. 191.

MELLIVORA gula rubra.

Edw. Av. t. 36.

MELLIVORA Avis Carolinenſis.

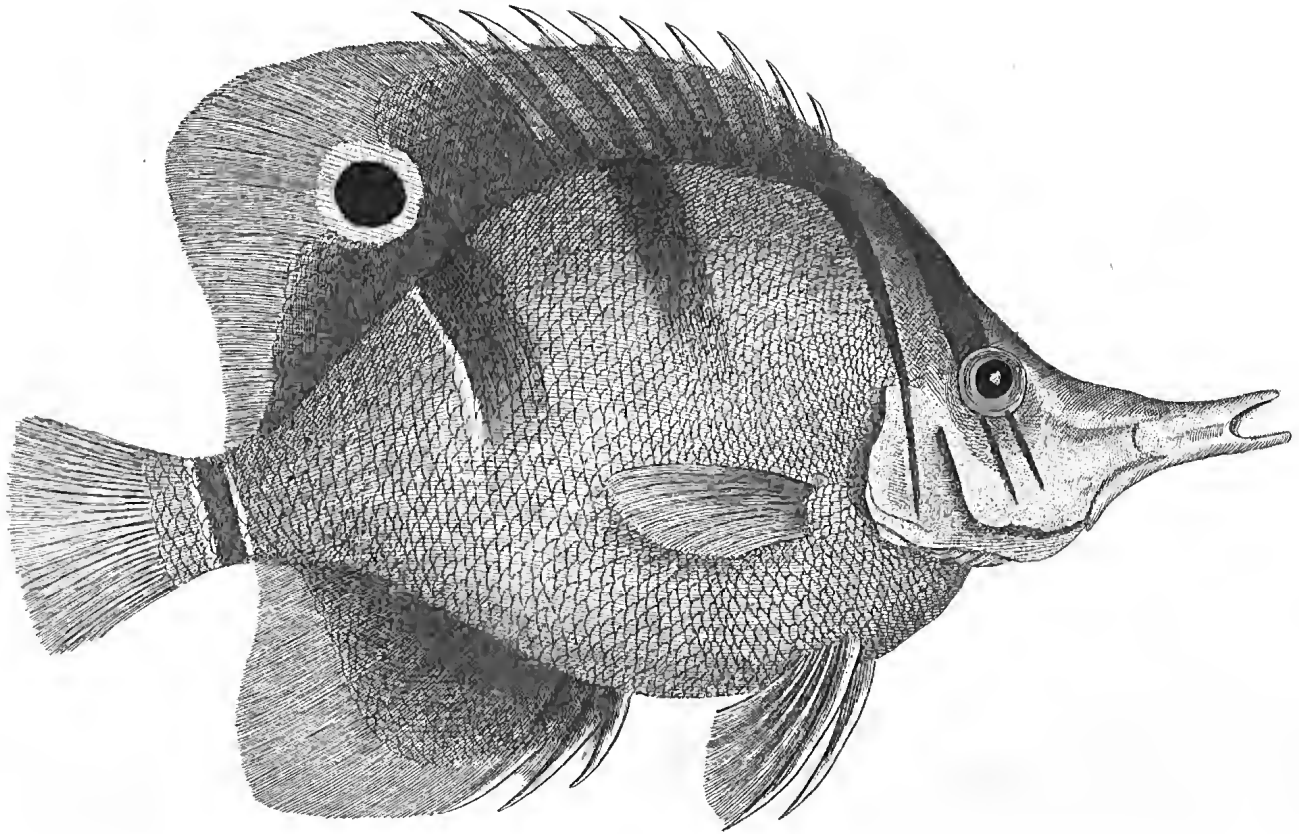
Cateſb. Carol. 1. p. 65.

Coloribus nitidis adeo gemmeiſque exornatur minutum Trochili genus, ut ſi cum his comparantur, non modo ſordeant prorſus et obſcurentur avium plurium regiones calidiores incolentium venuſtiſſimi colores, ſed et aurum ipſum pyropuſque longe ſuperentur. Nequeunt igitur ulla arte ſplendidiſſimi hi colores ad

vivum exprimi, quæ tum ſane magnum præſtitit, ſi inſigne harum avium decus imitando adumbraverit. Regulus criſtatus Europæus avicula omnium minima diu habebatur, et ſtupebant prorſus noſtrates phyſici, cum aves Americanas vel ipſis inſectis Europeis minores conſpicerent; inter quas eſt Trochilus vix ſcarabæo vulgari major. Cum tamen minuta hæc ſpecies cæteris cedat colorum ſplendoribus, ſatius duxi aliam eamque elegantiorem exprimere.

Formoſiſſima hæc avicula plurimas Americæ partes, Carolinam præcipue tam Septentrionalem quam Auſtralem inhabitat. Roſtrum illi nigrum eſt. Corporis ſuperiora ſplendent aureo-viridi, et mutabili colore. Gulam decorant plumæ coccineæ nitidiſſimæ, quæ pro lucis ratione in aureum fulgentiſſimum tranſeunt. Pectus et abdomen albicant. Alarum remigeo fuſco-purpurei. Feminæ ſuperficies inferior albicat, carens omnino rubore illo eximio quo mas inſignitur. Miranda eſt huic aviculæ pennarum velocitas. Inter volandum cibum capit phalænæ more, linguam nempe tubulatam in fundum florum immergens et mel inde exugens. Pugnaciſſimo eſt ingenio, nec raro de eodem flore acerrime dimicatur. In domus frequenter involat Trochilus, cumque, more inſectorum Europæorum, tres quatuorve gyros egerit, dicto citius e feneſtris effugit. Ubi denſiſſima eſt arborum coma nidificat, plerumque inter furcas ramulorum. Diametros interna nido eſt unciæ, profunditaſque unciæ dimidiatæ: tomento, ſeu lanugine plantarum intus ſtruitur, extrinſecus muſco et lichene ſtipatur. Ova tantum duo deponit hæc avis, alba, magnitudine piſorum. Dum

incubat



London. Published 1 May 1797 by T. & R. Nodder & Co.ª N.º 36 Berners Street.

THE JACULATOR, OR SHOOTING FISH.

GENERIC CHARACTER.

Teeth (generally) ſetaceous, ſmall, and very numerous.

Body commonly faſciated tranſverſely. Dorſal and anal *Fins* fleſhy and ſcaly toward the baſe.

SPECIFIC CHARACTER.

WHITISH CHÆTODON, with nine ſpines and an ocellated ſpot on the dorſal fin, and a lengthened ſubcylindric ſnout.

The fiſh here repreſented in its natural ſize, is a native of India, where it inhabits rivers, eſpecially where the water, from its nearneſs to the ſea, is a little brackiſh. It is remarkable for the very extraordinary manner in which it takes its prey. It principally feeds on flies and other inſects which hover over the waters. When it obſerves one of theſe in its paſſage, it ſhoots againſt it from its tubular ſnout a drop of water, with ſo much force, and with ſo ſure an aim as generally to lay it dead on the ſurface. In the ſame manner it ſhoots

ſhoots at ſuch inſects as happen to be ſitting on the tops of plants and other projecting objects near the banks. In ſhooting at a ſitting inſect it commonly approaches to the diſtance of from ſix to four feet before it explodes the water.

When kept in a ſtate of confinement in a large baſon of water, theſe fiſh afford a high entertainment, by their dexterity in this exerciſe. If a fly or other inſect be faſtened on the edge of the veſſel, the fiſh inſtantly perceive it, and, as if contending for the prize, continue to ſhoot at it, with ſuch admirable ſkill as ſcarce ever to miſs their mark.

The color of this fiſh is whitiſh, or very pale brown, with (commonly) four or five blackiſh faſciæ running acroſs the body. The eyes are very large. On the lower part of the dorſal fin is a very remarkable large black ocellated ſpot, ſurrounded by a circle of a lighter color. The ſnout is finely calculated for the power of exploding water from it. The trivial name of Roſtratus, which LINNÆUS applied to this fiſh, being not ſufficiently diſtinctive of the ſpecies, but applying with perhaps equal propriety to ſome others of the genus, I have preſumed to ſubſtitute that of Enceladus.

I think it neceſſary to obſerve that it is not improbable that the faculty of darting or ſhooting water from the ſnout may not be abſolutely peculiar to the fiſh above-deſcribed, but may perhaps take place in two or three other ſpecies.

PAPILIO ACHILLES.

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Character Genericus.

Antennæ apicem verſus craſſiores, ſæpius clavato-capitatæ.

Alæ (ſedentis) erectæ ſurſumque conniventes (volatu diurno).

Lin. Syſt. Nat. p. 744.

Character Specificus.

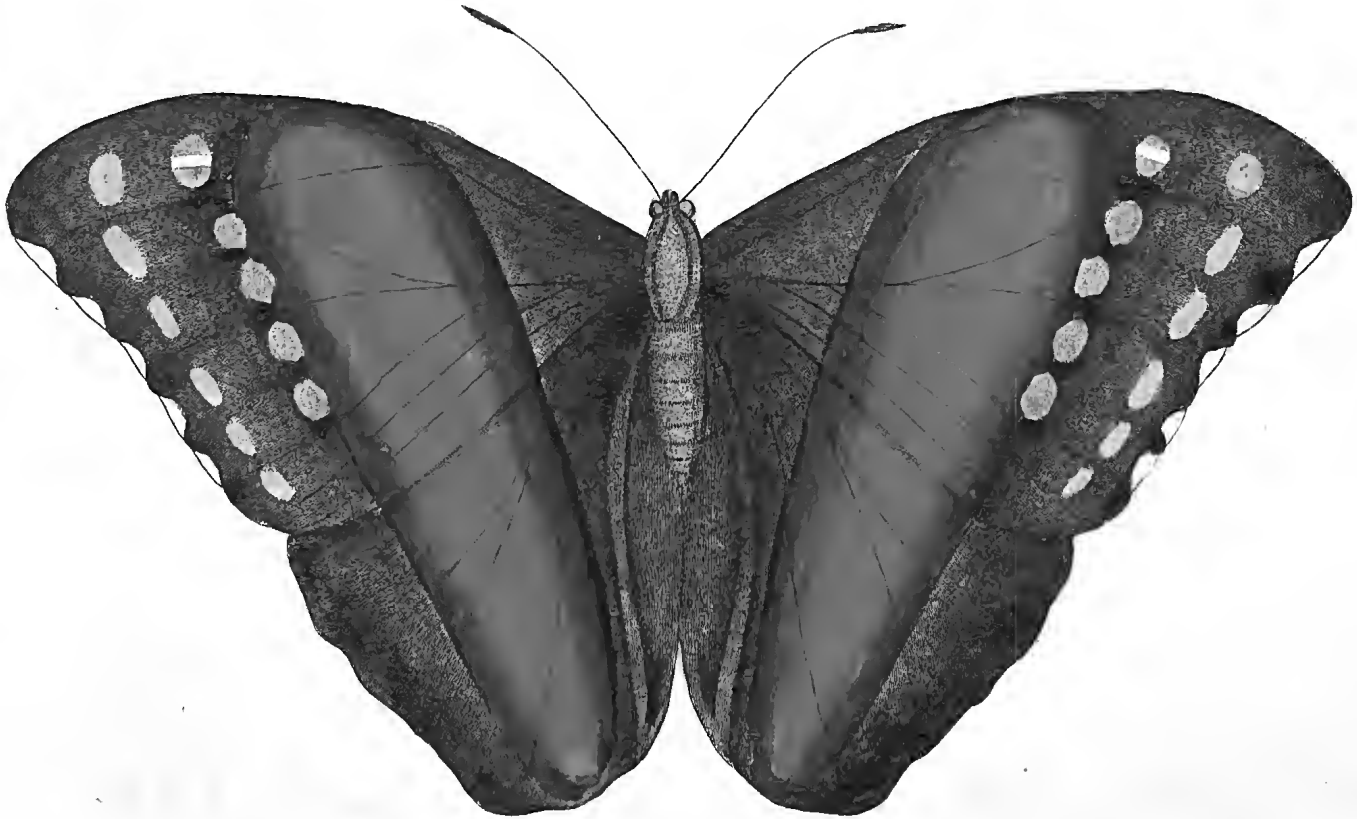
PAPILIO alis dentatis : ſupra nigris faſcia cærulea ; ſubtus fuſcis : ocellis tribus quiniſve.

Lin Syſt. Nat. p. 752.
Eq : Achiv.

Clerk. ic. t. 24. fig. 2.
Mer. Sur. t. 7. ?

Americam Auſtralem incolit grande hoc inſectum, venuſta quadam dignitate conſpicuum. Colores interdum variant. Habent nempe nonnulla ſpecimina faſciam iſtam quæ ſplendidiſſime cærulea eſt latiorem multo quam alia. Differunt etiam tum numero tum colore pallidæ illæ maculæ ad apices alarum ſuperiorum ſitæ, interdumque fere albæ ſunt, et paululum ocellatæ, interdum ſubfuſco obumbratæ. Superficiei inferioris

inferioris color eſt fuſcus, ſtriis pallidioribus undulatus, maculiſque magnis ocellatis, quarum alba ſunt centra, diſtinctus.



London. Published May 1st 1792 by F. P. Nodder & Co. No 15 Bower Street.

ACHILLES,
OR THE
GREAT BLUE-BANDED BUTTERFLY.

GENERIC CHARACTER.

The *Antennæ* or *Horns* thickening towards the upper part, and generally terminating in a knob, or club-ſhaped tip.

The *Wings* (when ſitting) erect, and meeting upwards. (*Flight* diurnal).

SPECIFIC CHARACTER.

BLACK BUTTERFLY with indented wings, croſſed by a broad band of blue: the lower ſurface brown, with ocellated ſpots.

This inſect, ſo remarkable for its ſize and the grandeur of its appearance, is a native of South America. It is ſubject to ſome variety; the band of brilliant blue being wider in ſome ſpecimens than in others: there is alſo a difference in the number as well as the color of the pale ſpots with which the upper wings are marked towards their tips, which in ſome ſpecimens are nearly white, and of a ſomewhat ocellated appearance; in

others

others tinged with pale brown. The lower ſurface of this inſect is brown, undulated with paler ſtreaks, and ornamented by ſome large ocellated ſpots with white centres or pupils.

ANAS MERIANÆ.

Character Genericus.

Roſtrum lamelloſo-dentatum, convexum, obtuſum.

Lingua ciliata, obtuſa.

Lin. Syſt. Nat. p. 194.
Ord. *Anſeres.*

Character Specificus.

ANAS cupreo-ferrugineo cyaneo viridique varia, ſubtus alba, capite collo poſtico remigumque ſecundariorum apicibus caruncu-latis.

Ab exemplari, quod cum aliis multis Surinamenſibus a lectiſſima Merian eximie depictis, in Muſeo Britannico aſſervatur, pulcherrimam hanc avem imitati ſumus.

Omnes quibus illam intueri datum eſt ſemper torſit ſpecies incognita. Ad Linnæi Anatis moſchatæ ſimilitudinem, ſeu, ut vulgo dicitur Moſcoviticæ videtur accedere; caput tamen pluribus tuberculis aſpergitur, per collum etiam poſticum longe decurrentibus; quodque magis mirandum, in apicibus remigum ſecundariorum magna horum exuberat luxuria, faſciam duplicem caruncularum per mediam alam tranſverſe

ducentium. Effecit res nova et inaudita ut ipſius picturæ veritas in dubium vocetur, cum in reliquo hoc genere fruſtra quæratur ſimile quidpiam, nec ſane in alio aliquo tanta ſit tuberculorum ubertas.

Fatendum eſt Garruli Boiohemici, qui Ampelis Garrulus Linnæi, remiges ſecundarios appendicibus complanatis corneis ruberrimiſque terminari ; quod et in Gallo gallinaceo, ſi juxta naturam ipſam vixerit, minus tamen perſpicue, cernitur ; in extremitatibus nempe pennarum quæ in collo ſunt. Annon igitur in hac anatis ſpecie remigibus ſecundariis revera appendantur tubercula ; ſeu habeat avis certis temporibus carunculas laterales, quæ per ipſas alarum pennas interdum protrudantur ; an denique ipſa Merian, ut phyſicorum ingenium exerceret, avemque formoſiorem redderet, a veritate ſemel ſciens volenſque deflexerit ; hæc omnia futuris indagatoribus relinquamus neceſſe eſt. Certum interim eſt hodiernis phyſicis plane ignotam eſſe hanc avem, illamque ex antiquioribus neminem aut deſcripſiſſe aut depinxiſſe. Magnitudine Anatis communis ſeu Boſchadis a Meriana depingitur.

THE

MERIAN DUCK.

GENERIC CHARACTER.

Bill broad and flattened; the edges marked with ſharp lamellæ.

Tongue broad and ciliated at the edges.

SPECIFIC CHARACTER.

DUCK varied with copper-ferruginous, deep blue, and green: white beneath; with the head, back of neck, and tips of ſecondary wing-feathers carunculated.

The very extraordinary and beautiful bird here figured is accurately copied from a moſt elegant drawing by the celebrated Madam MERIAN, and is one of the birds of Surinam which occur in the repreſentations by that lady now preſerved in the Britiſh Muſeum.

This bird has uniformly puzzled every ornithologiſt who has viewed it, to determine its real ſpecies. It is evident at firſt ſight that it bears a ſtrong affinity to the Anas moſchata of LINNÆUS, which is commonly called the Moſcovy Duck; but is much more tuberculated about the head, and even a very conſiderable diſtance down the back of the neck; and what is to the laſt degree ſingular, the ſame ſort of tubercles appear

pear in full luxuriance at the tips of the ſecondary remiges or wing feathers, forming a double carunculated band acroſs the middle of the wing. This is a circumſtance ſo extremely peculiar, that it has given riſe to ſtrong ſuſpicions of the fidelity of the drawing; there being no other inſtance of a ſimilar appearance in the birds of this genus, or indeed, in ſo ſtriking a degree, in any other.

It is true that in the bird called the Ampelis Garrulus, or Bohemian Chatterer, the tips of the ſecondary wing-feathers are terminated by flat callous or horny appendages of a bright red color; and an appearance in ſome degree analogous to this takes place alſo in the tips of the neck-feathers of the common cock in a ſtate of Nature. Whether therefore in this ſpecies of duck the tips of the ſecondaries be really furniſhed with tuberculated appendages; or whether the bird, at particular ſeaſons may not be furniſhed with lateral caruncles, which may occaſionally protrude between the feathers of the wings as repreſented by Madam Merian; or laſtly, whether that ingenious lady may not in this inſtance have departed a little from her general accuracy, and have given what ſhe might have conſidered as an additional ornament, muſt be left to future enquiries to determine: certain it is that the bird is unknown to modern ornithologiſts, and is neither figured or deſcribed by any other natural hiſtorian. The ſize of Madam Merian's figure is nearly that of a common duck.

HEDYSARUM GYRANS.

CHARACTER GENERICUS.

Corollæ carina tranſverſe obtuſa.
Legumen articulis monoſpermis.

Lin. Syſt. Nat. p. 493.
Diadelph : Decandr :

CHARACTER SPECIFICUS.

HEDYSARUM foliis ternatis.

Lin. Suppl. Plantar. 1781. p. 332.

Cum paucis abhinc annis ab interiori Bengala ad nos pervenerit hæc planta, perculit omnino Europæos phyſicos mira illius atque antehac incognita qualitas ; motus nempe perpetuus et ſpontaneus, cauſis externis nec impeditus nec acceleratus, Mimoſæ aliarumque nonnullarum more negans irritari. Efficitur hic motus alternatim convenientibus et recedentibus duobus parvulis foliis utrinque ad pediculos ſitis, quæ per totum fere diem leni hoc exercitio agitantur.

Apud nos tamen non ſemper expectationi reſpondet Hedyſarum Gyrans, frigus ſentiens torpidum, aeremque pigrum et a nativo longe diverſum, manenſque meridiem, languido et imbecillo conatu vim inſitam ægre evocat : clariſſimum argumentum mitiores zephyrorum auras, mollemque cœli Indici temperiem hypocauſtorum vaporibus male permutari. In Gangetica terra facili-

facillimus et liberrimus eſt hujus plantæ motus, quam ſacram habent incolæ, cæteriſque longe digniorem.

Spontaneo huic motui nihil adhuc in vegetabilibus ſimile repertum eſt: inter plurima eſt quæ oculis, non intellectu cernuntur, quæque non poſſumus non admirari, ignorantiam fatentes.

In Europa ad altitudinem duorum vel trium pedum plerumque creſcit, foliaque gerit læte viridia, quorum media pars magis eſt glauca; floreſque rubentes ſubcæruleo tinctos, et interdum flaveſcentes.

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ANIMATED HEDYSARUM,
OR THE
MOVING PLANT.

GENERIC CHARACTER.

Keel of the *Corolla* tranſverſely obtuſe.
Legume with ſingle-ſeeded joints.

SPECIFIC CHARACTER.

HEDYSARUM with ternate leaves.

The plant of which a figure is here given was ſome years backwards tranſmitted to us from the interior parts of Bengal, and ſtruck the European Naturaliſts with aſtoniſhment at a phænomenon till then unknown amongſt vegetables; viz. a conſtant and voluntary motion; unconnected with any peculiar irritability, as in the ſenſitive plants and ſome others, and neither accelerated or retarded by external cauſes. The motion conſiſts in the alternate meeting and receding of the two ſmall appendages or leafets ſituated on each ſide the footſtalks, and which are engaged in this gentle exerciſe during the greateſt part of the day.

In our own country, however, it is not always that the ſpecimens of this curious plant, in an air ſo different from that of their native regions, exhibit themſelves to advantage: they frequently feel the benumbing effects

fects of an unfavorable climate, and only make a faint and feeble attempt towards the middle of the day, at exerting their extraordinary faculty; a convincing proof how much the artificial heat of a northern ſtove is inferior to the genial warmth and balmy ſoftneſs of its native Indian atmoſphere! It is there that it exerts its wonderful motions with unreſtrained freedom, and is regarded as a ſacred plant, poſſeſſed of powers ſuperior to the common race of vegetables.

This voluntary motion is not analogous to any other yet obſerved in plants: it is one of thoſe numerous phænomena which we are obliged to view without underſtanding, and to admire without being able to explain.

The ſpecimens raiſed in Europe generally riſe to about the height of two or three feet: the leaves are of a bright green with the middle part of a more glaucous appearance than the reſt: the flowers are of a pale red, ſlightly tinged with blueiſh, and ſometimes yellowiſh.

SERTULARIA SETACEA.

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Character Genericus.

Flores Hydræ.

Stirps radicata, fibroſa, nuda, articulata: articulis unifloris.

Lin. Syſt. Nat. p. 1306.

Character Specificus, &c.

SERTULARIA ſimplex pinnata, pinnis alternis ſubincurvatis, denticulis obſoletis remotiſſimis ſecundis, ovariis oblongo-tubulatis axillaribus.

Ellis. Zooph. p. 47.

SERTULARIA PINNATA. β.

Lin. Syſt. Nat. p. 1312.

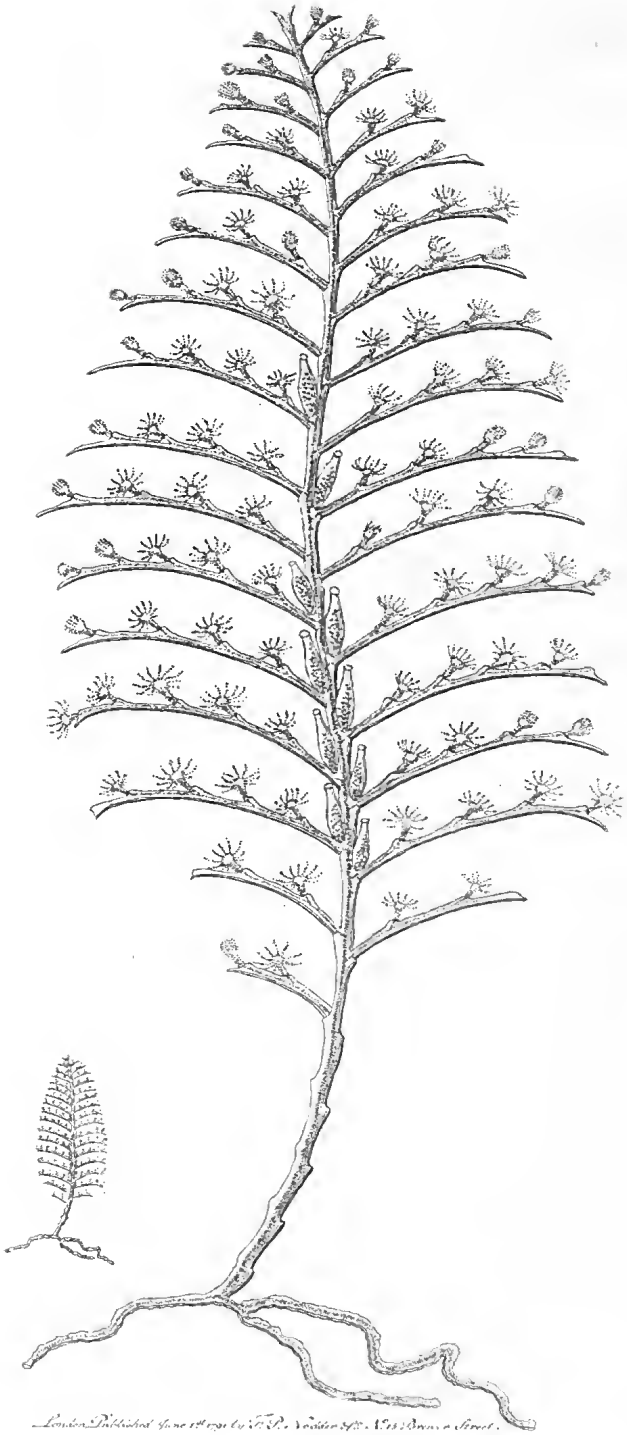
Genus Sertulariæ, exemplum admirabile exſtat animalis ſub ſpecie vegetabilis. Tam apprime enim plantas repræſentant pleræque Sertulariæ ſpecies, ut pene ab omnibus pro muſcis marinis habitæ, itaque ab hiſtoriæ naturalis ſtudioſis deſcriptæ ſint. Solertiſſimus autem nuper defunctus Ellisius plane probavit hæc ſimulata vegetabilia veras eſſe hydras, ſeu polypos marinos; ab hydris aquarum dulcium in hoc differentes, quod habeant corneam velut thecam corporum ramu-

los cingentem, defendentemque ab omnibus injuriis quas in elemento tam turbido et feroci nudæ experirentur.

Sertulariæ rupibus, conchis aliisque, stolonibus, seu radicibus velut repentibus affiguntur ; et hoc modo plantis videntur simillimæ. Corpuscula illa ovata, quæ in axillis ramulorum conspiciuntur, pro ovariis ab Ellisio habentur, credunturque continere ova, et interdum etiam fœtus plane formatos. Species Sertulariæ numerosissimæ exstant, quarum plures sunt vulgatissimæ.

Species quam hic depingi curavimus ab Ellisio mutuati sumus, utpote structuræ qualitates peculiares probe exprimentem. Pars animalis, velut medulla, undique per corneam thecam diffusa est ; et ex singulo ramulorum denticulo sub forma capitis hydræ protruditur cum suis tentaculis. Ovaria, ut vocat Ellisius, in axillis ramorum sita sunt. Sertulariæ, sicut hydræ aquarum dulcium, omnia animalcula prædantur quæ tentaculis suis fors obtulerit.

Fig. 1. Animal magnitudine naturali.
Fig. 2. Idem microscopio auctum.



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THE SMALL SEA-BRISTLE CORALLINE.

Generic Character.

A compound Hydra or Polype ramified in the manner of a plant, included in a horny case, and affixed by its base.

Specific Character, &c.

SIMPLY PINNATED SERTULARIA, with bent alternate pinnæ furnished with very remote processes growing on one side only, and oblong axillary ovaries.

LITTLE SEA-BRISTLE CORALLINE.

Ellis Zooph. p. 47.

Ellis's Corallines, pl. 38. fig. 4.

The genus Sertularia affords a most curious proof of an animal body under the appearance of a vegetable. So very great is the similarity which most of the species bear to plants, that they have almost universally been regarded as a sort of sea-mosses, and as such have been described by most naturalists; but the late ingenious Mr. Ellis seems to have clearly proved that these apparent vegetables are no other than real marine polypes or hydras; which differ from the fresh-water polypes in being provided by Nature with a horny case

caſe or tube, accompanying the ramifications of their bodies, and ſerving to defend them from the numerous diſaſters to which they would otherwiſe be liable, if left naked in the tumultuous element in which they are deſtined to reſide.

They adhere to rocks, ſhells, &c. by creeping proceſſes, which bear the appearance of ſpreading roots, and thus contribute ſtill farther to their plant-like aſpect. The oval bodies which are ſo frequently ſeen ſeated at the baſes of the lateral branches, are ſuppoſed by Mr. Ellis to be the ovaries of the animal, containing the eggs, and ſometimes the completely-formed young. The ſpecies of Sertularia are extremely numerous, and are very common.

The ſpecies here figured we have copied from the works of Mr. Ellis, as it ſerves to ſhew in the cleareſt and moſt diſtinct manner poſſible, the ſeveral particulars of the ſuppoſed ſtructure. The animal part like a medulla or pith, is every where ſeen through the tranſparent horny coat; and at every denticulation of the branches it is protruded in the form of a polype-head with its tentacula. The ſuppoſed ovaries are ſituated in the axillæ of the branches. The Sertulariæ, like the freſh-water polypes, prey on ſuch ſmall animalcules as happen to fall in the way of their tentacula.

Fig. 1. repreſents the animal in its natural ſize.
Fig. 2. ſhews it magnified by a microſcope.

STRUTHIO RHEA.

Character Genericus.

Roſtrum ſubconicum, depreſſum.
Nares ovatæ.
Alæ ad volandum ineptæ.
Pedes curſorii.

Character Specificus.

STRUTHIO pedibus tridactylis.

Ab exemplari pulcherrimo Americano, in Muſeum Leverianum nuperrime illato nunc primum depingitur avis exoticarum fere omnium rariſſima, quamque probabile eſt non modo non vidiſſe Europæos phyſicos, ſed pene ignoraſſe. Struthioni licet communi ſeu Africano primo intuitu ſimillima ſit Rhea, alarum tamen pennæ, utcunque ad volandum inutiles, non modo longe majores ſunt, ſed et laxæ et quaſi divaricatæ; et utrinque ſuper axillas exſtat faſciculus plumoſus elongatus, torquem efficiens, quali propemodum diſtinguitur cervix Tetraonis Umbelli. Facillime vero ſpeciem denotat, Linnæoque pro charactere ſpecifico inſerviit pedum forma, qui tridactyli ſunt, digitis

omnibus antrorſum ſpectantibus, ungulatis, et æquali fere magnitudine; cum habeat pes Struthionis communis duos digitos, quorum major tantum unguibus inſtruitur. Color Rheæ, in hoc ſaltem ſpecimine, eſt terreo-fuſcus, ſubtus pallidior, pennis alarum intermediis ſeu interioribus albis. Cauda vix diſcerni poteſt; in uropigio tamen paulo productiores ſunt pennæ quam in reliquo corpore. Crura pedeſque nigricant.

Notandum eſt in America tantum Auſtrali reperiri hanc ſpeciem, et pullum forſitan fuiſſe avem quæ in Muſeo Leveriano aſſervatur; eſt enim Struthione Africano dimidio minor.

THE

AMERICAN OSTRICH.

GENERIC CHARACTER.

Bill depreſſed, rounded at the end.
Wings uſeleſs for flight.
Legs naked above the knee.

SPECIFIC CHARACTER.

OSTRICH with three-toed feet.

The Struthio Rhea, or American Oſtrich, one of the rareſt of exotic birds, and which appears to have been hitherto almoſt unknown in Europe, and ſcarce ever ſeen by any European naturaliſt, and which moſt certainly has never before been figured, is here faithfully repreſented from a very fine ſpecimen lately ſent from America to the Leverian Muſeum. In its habit, or general appearance, this bird at firſt ſight bears a near reſemblance to the common or African Oſtrich; but the wings, though uſeleſs for flight, are compoſed of feathers which greatly exceed thoſe of the common oſtrich: they are alſo looſer, and more divaricated or

ſpread than in that ſpecies; and on each ſide the neck, juſt above the axillæ, is a faſciculus of long feathers, forming a ſort of ruff, almoſt in the ſame manner as in the Tetrao Umbellus, or ruffed heathcock; but what eaſily diſtinguiſhes this ſpecies, and which LINNÆUS has made uſe of for his ſpecific character of the bird, is, that the feet are not didactylous, or compoſed of two toes, as in the common or African ſpecies, but are tridactylous, or compoſed of three diſtinct toes; all which point forwards, and are nearly alike as to proportion: they are likewiſe all three furniſhed with claws; whereas in the common oſtrich there are only two toes, of which the primary or large one alone is clawed. The colour of this bird (at leaſt in the preſent ſpecimen) is earthy-brown, paler beneath, and the intermediate or interior wing-feathers are white. There is ſcarce any appearance of a tail, but the feathers on the rump are a very little longer than in other parts. The legs and feet are blackiſh. I ſhould obſerve, that this ſpecimen is probably not a full-grown one, and is ſcarcely half the ſize of the common or African oſtrich.

MUS STRIATUS.

Character Genericus.

Dentes Primores inferiores ſubulati.

Lin. Syſt. Nat. p. 79.

Character Specificus, &c.

MUS rufus, corporis ſtriis pluribus albo-guttatis.

MUS Orientalis.

Seba. 2. t. 21. f. 2.
Pall. Glir. p. 90. No. 97.

In calidioribus ut plurimum mundi partibus, in India præcipue Orientali reperitur mus hicce parvulus et pulcherrimus. Color eſt rufus ſeu ferrugineo-fuſcus, ſubtus pallidior magiſque albicans. Ornantur dorſum et latera crebris ordinibus punctorum alborum quæ formam ovatam obtinent. Crura quoque et cauda ſubalbida ſunt. Cum ingenio ſit Mus ſtriatus miti admodum et innocuo facillime manſueſcit. Magnitudine muri vulgari paululum cedit.

THE

STRIPED MOUSE.

Generic Character.

Two cutting teeth in each jaw.
Four toes before; five behind.
Slender taper tail.

Specific Character, &c.

RUFOUS MOUSE, with the body marked by ſeveral rows of oval white ſpots.

ORIENTAL RAT.

Penn. Quadr. p. 445.

This little animal, ſo eminently diſtinguiſhed by the beauty of its appearance, is chiefly found in the warmer regions of the globe, and particularly in the Eaſt-Indies. Its colour is a ferruginous or reddiſh brown, paler, or more inclining to white beneath, and decorated on the back and ſides by ſeveral rows of ſmall oval ſpots of white. The tail and legs alſo incline to whitiſh. It is eaſily tamed, and its diſpoſition is perfectly mild and gentle. It is ſomewhat leſs than the common mouſe.

COLUBER NAJA.

Character Genericus.

Scuta abdominalia.
Squamæ ſubcaudales.

Lin. Syſt. Nat. p. 375.

Character Specificus.

COLUBER FERRUGINEO-FLAVESCENS, collo (plerumque) multum dilatato maculaque ſupra conſpicillata albo nigroque varia notato.

Scuta abdominalia circiter 193.
Squamæ ſubcaudales 60.

Inter Europæorum commoda jure poteſt reputari ſerpentum venenoſorum paucitas, qui in Indiæ et Africæ vaſtis regionibus, nec non in Americæ late patentibus deſertis denſo et horrendo dominantur agmine; nonnulli in exitium humani generis nimis, heu! lethaliter armati.

Omnes virulenti ſerpentes dentibus tubulatis venenum per foramen e facculo maxillari in vulnus inflantibus, inſtructi ſunt. Sunt tamen alii illis characteres quibus aliquatenus ab innoxiis ſerpentibus diſtingui

tingui poſſunt. Notavit Dominus Gray, in Actis Anglicis pleroſque venenoſos ſerpentes caput latum, depreſſum, ſquamis minutis tectum habere; corporaque ſquamis carinatis, ſeu linea elevata notatis obducta: at e contrario, innoxiis ſerpentibus, qui morſu tantum ſimplici lædunt, caput plerumque eſſe parvum, ſquamis magnis et latis adopertum, corpuſque ſquamis lævibus, ſeu non carinatis. Hi autem characteres generales habendi ſunt, nec ſunt improvide et indubitanter recipiendi. Ita ſe rem habere ſpecies depicta exemplum eſt clariſſimum. Eſt enim hic ſerpens inter peſtiferos fere diriſſimus; et tamen externis illis ſpecierum pernicioſarum characteribus non diſtinguitur; ſed ut innocuo ſerpenti caput eſt illi plerumque parvum, ſquamis magnis tectum; corpuſque ſquamis lævibus, ſeu non carinatis.

Tremendum hocce animal in India Orientali invenitur. Morſus ejus non minus quam Crotali funeſtus eſt. Ab Indiæ tamen incolis interdum capitur, et telis, ſeu dentibus tubulatis extractis (mirum dictu!) manſueſcit, et in varios modos, ad domini nutum, velut ſaltans, ſe contorquet; et ſæpe pro ſpectaculo exhibetur. Nota, quam in collo habet ſingularem, diverſis ſpeciminibus plus minus vivida eſt. Color etiam totius corporis in diverſis aliquatenus differt. In longitudinem aliquot pedum interdum creſcit hic ſerpens.

Cum monſtra hæc, regiones calidiores orbis incolentia, animo occurrunt, gratulari nobiſmetipſis merito poſſumus de noſtra ſecuritate; et lubentiſſime anteponamus hyemis ſeptentrionalis incommoda, pigroſque campos

campos et diu infructuoſos, perenni climatis æſtati, et floribus perpetuo ridentibus, quibus India utraque ſuperbit: at ubi, proh dolor! viator incautus, media inter gaudia, fato ſubitaneo corripitur.

THE SPECTACLE SNAKE, OR COBRA DE CAPELLO.

Generic Character.

Tranſverſe *Lamellæ* under the abdomen.
Broad alternate *Scales* under the tail.

Specific Character.

FERRUGINOUS-YELLOW SNAKE, with the neck (generally) much dilated, and marked above by a ſpectacle-ſhaped ſpot of black and white.
The abdominal plates are about 193.
The ſubcaudal ſcales 60.

In Europe the noxious part of the ſerpent tribe is happily confined to a very few poiſonous ſpecies; but the vaſt regions of India and Africa, and the extenſive wilds of America, are infeſted by a variety of theſe dreadful reptiles; ſome of which are but too well provided with the fatal power of deſtroying mankind by their bite.

Such

Such ſerpents as are of a venomous nature, are furniſhed with tubular fangs, or teeth, through which their poiſon, which is contained in reſervoirs at the roots of the fangs, is injected into the wound. Beſides the fangs, there are in general ſome external characters which may in ſome meaſure ſerve to diſtinguiſh the poiſonous ſerpents from the innoxious ones: thus it has been obſerved by the ingenious Dr. GRAY, in the Philoſophical Tranſactions, that the generality of poiſonous ſerpents have a broad, depreſſed head, covered with ſmall ſcales; and that their bodies are commonly covered with carinated ſcales, *i. e.* ſcales which have a prominent line upon them. On the contrary, the innoxious ſerpents, or ſuch as can merely inflict a ſimple wound, have generally a ſmalliſh head, covered with large broad ſcales, and the body covered with ſmooth ſcales, or not carinated: but theſe are characters which admit of exceptions, and are merely to be regarded in a general view. The ſpecies here figured is a ſtriking inſtance of this, and (as Dr. GRAY obſerves) is in every reſpect a complete exception to what has been ſaid reſpecting the diſtinction between venomous and innoxious ſerpents; for though this is one of the moſt terrible of the whole tribe, yet it is not diſtinguiſhed by thoſe external marks of malignity which commonly characterize the poiſonous ſpecies: on the contrary, it agrees with the innoxious ſerpents in having a ſmalliſh head, covered with very large ſcales; while the body is covered with ſmooth ſcales. This formidable animal is a native of the Eaſt-Indies. Its bite is not leſs deſtructive than that of the Rattle-

Snake.

Snake. It is ſaid however to be ſometimes caught by the Indians, and after having its fangs drawn, to be in ſome degree tamed, ſo as to be taught to throw itſelf into various fantaſtic attitudes, as if daneing; and in this eondition is often exhibited in India as a ſhew. The very ſingular mark on the neck is much more apparent in ſome ſpeeimens than in others. The colour alſo of the whole body is deeper or lighter in different ſpecimens. It grows to the length of ſome feet.

Reflecting on theſe horrid natives of the hotter regions of the globe, we may congratulate ourſelves on our own happy ſtate of ſecurity, and may well be willing to prefer the rigours of a northern winter, with a temporary loſs of vegetation, to the eontinued warmth of elimate, and ever-blooming verdure, which diſtinguiſh the beautiful regions of both the Indies; where alas! the ineautious traveller may meet with ſudden fate in the midſt of the moſt enchanting ſcenes which nature ean diſplay.

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